Minnesota Medicine

Journal of the Minnesota State Medical Association, Southern Minnesota Medical Association, Northern Minnesota Medical Association, Minnesota Academy of Medicine and Minneapolis Surgical Society

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A Tribute to O. H. Wangensteen

THIS YEAR marks the twentieth anniversary of the first work in intestinal obstruction by Dr. O. H. Wangensteen, Department of Surgery, University of Minnesota Medical School. As the years have gone by, our knowledge of the value and limitations of siphonage drainage in ileus have been crystalized. There is no question that the simple expedient of decompressing the intestinal tract has made many operations upon the intestinal tract feasible or at least has lowered their mortality. Dr. Fred Coller of the Department of Surgery, University of Michigan Medical School, has stated that Doctor Wangensteen's work on decompressing the intestinal tract has been the greatest contribution to surgery in two decades.

Doctor Wangensteen's first interest in the subject of intestinal obstruction was not encouraged by some of the older members of the faculty who told him that "everything that could be known was known about intestinal obstruction." Also his first paper was rejected by the editor of the Proceedings of the Society for Experimental Biology and Medicine as being of "little scientific interest." As a result of this research, however, one never sees now-a-days an ileostomy or colostomy performed for a paralytic ileus, or hears that cases of strangulation obstruction should be treated conservatively. It is true that patients with complete mechanical obstruction of the large or small bowel still have to be operated upon to relieve the obstruction, but in the partial mechanical obstruction due to adhesions, how many lives have been saved and how many operations have been avoided by decompressing the intestinal tract with an indwelling intestinal tube?

Recognition and honor have come to Doctor Wangensteen in the past few years but he wears his mantle of greatness with modesty. More than his interest in research has been his interest in the training of future surgeons. Few teachers have had the respect and affection of their surgical fellows tendered Doctor Wangensteen. It was characteristic of him that the check presented to him at his testimonial dinner by the St. Paul Surgical Society in January, 1951, was given to the Travel Fund for his surgical fellows.

It is a happy occasion that this number of MINNESOTA MEDICINE is dedicated to Doctor Wangensteen. Few surgeons have received such international renown or set the pattern for surgical thoughts among their colleagues as he has. We in Minnesota are proud of the accomplishments of this native son.

FLUID AND ELECTROLYTE BALANCE IN INTESTINAL OBSTRUCTION

FREDERICK A. COLLER, M.D., and ROBERT E. L. BERRY, M.D.
Ann Arbor, Michigan

INTESTINAL obstruction has always been a dread event, one of great anguish and danger to the patient and one of great anxiety to the surgeon because of difficulties of diagnosis and the complexities of treatment. Both patient and physician owe much to a comprehensive study of this problem initiated by Dr. Owen Wangensteen more than twenty years ago. It has been carried on by him and his associates since that time. They have gone a long way in clarifying the many phases of the disease through their scientific and clinical studies and they have given direction to other investigators and important aid to the practicing physician.

The most widely acclaimed of Doctor Wangensteen's many therapeutic suggestions was a method of decompression, and the phrase "Wangensteen suction" has become fixed in surgical language. However, his studies on the nutritional and acute chemical abnormalities produced by intestinal obstruction, while perhaps not as spectacular, have been fully as important. In tribute to this phase of his research we present this brief review of the chemical imbalances associated with obstruction of the bowel.

The composition of the body fluids is now well established, but the factors that influence their rate of motion are as yet practically unknown.

The reconstitution and maintenance of the water, salt, protein and red blood cell needs of the patient with intestinal obstruction still present many challenging problems. By necessity, therefore, any discussion of fluid balance problems peculiar to this condition must be approached with awareness of our lack of knowledge of many aspects of body fluid dynamics.

Our concepts of treatment of dehydration produced by intestinal obstruction have been slowly evolved from the great amount of research, both experimental and clinical, done by many investigators. That the abnormal loss of body fluids could produce serious and even lethal sequellae had been observed by O'Shaughnessy (1831) over one hundred and twenty years ago.[11] His researches in which he observed hemoconcentration, diminution of blood sodium, chloride and bicarbonate as well as increase in blood urea in patients with cholera were remarkable original investigation for that time. Based upon the response of his patients he advised administration of "the normal salts" of the blood either intravenously or by proctoclysis. Despite confirmation of his work by other workers, full acceptance of his observations was not achieved until much later because of inertia and ignorance.

Prior to 1912 the accepted theories as to the cause of death in intestinal obstruction were: (1) the reflex nervous action on the cardiovascular center, (2) the bacterial invasion outward from the intestinal lumen either into the peritoneum or into the blood itself, and (3) the absorption of toxins from the intestine produced by bacteria, food decomposition and secretory activity of the glands of the intestine. The importance of dehydration as a lethal factor in obstruction was first suggested by the experiments of Hartwell and Hoguet (1912) who observed that the lives of dogs with high intestinal obstruction could be significantly prolonged by the subcutaneous injection of normal saline solution.[7] These investigators felt, however, that the loss of water due to vomiting was the important element in the development of symptoms and that intoxication resulted from tissue disintegration resulting from such water loss.

Observations upon the profound disturbances in the electrolyte pattern of the blood in experimental pyloric obstruction were first made by MacCallum and his associates (1920).[9] These investigators found that such obstructions produced marked decrease in the blood chlorides and an accompanying increase in the alkali reserve. There was also an associated increased electrical excitability of the nerves that could produce violent convulsions. The beneficial effects of the administration of large amounts of sodium chloride were also observed but the mechanism by which such benefits were obtained remained obscure.

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Hayden and Orr (1924)[6] observed the same changes in blood electrolytes produced by obstructions of the small bowel as had been pointed out by MacCallum. In their interpretation, these workers assumed that the fall of blood chlorides was not due to abnormal loss through vomiting but to fixation in the tissues with a toxin from the obstructed bowel. This utilization of the chloride ion was assumed to be a protective mechanism on the part of the body and that the administration of large amounts of sodium chloride reduced this toxemia. The views of Hayden and Orr were strongly attacked by Foster and Hausler (1929) who concluded from their experiments that death in intestinal obstruction was due to dehydration and starvation and there was no evidence of toxemia.[3]

A sound basis to explain many of the laboratory and clinical phenomena observed in obstruction was first offered by Gamble and Ross (1925).[4] Their observations led them to believe that failure of physiological processes and death following experimental obstruction of the pylorus could reasonably be due to continued reduction of the volume of body fluids by continued loss of chloride and more importantly sodium and that the beneficial effects of sodium chloride administration were due to repair of the chemical structure of certain body fluids permitting recovery of a normal volume of body water. They also pointed out that the administration of water with or without glucose or the chloride ion alone (NH_4Cl) was not effective in preventing dehydration. After twenty-five years these observations remain as the basis for the restoration and maintenance of the extracellular fluid volume.

Gatch and his associates (1927) observed changes in blood electrolyte similar to those observed by Gamble, in small bowel obstructions.[5] They also attributed death in intestinal obstruction to dehydration, reduction of blood chlorides by vomiting and starvation. Their experiments demonstrated, however, that sodium chloride treatment was not effective in strangulated obstructions.

Following the researches of these pioneer investigators the great bulk of experimental and clinical data has provided a progressive betterment of our knowledge of the treatment of dehydration produced by intestinal obstruction and futhermore has suggested that almost all, if not all, of the deleterious systemic effects associated with intestinal obstruction are due to dehydration and bowel distention and that toxemia in simple obstruction probably does not exist. Strangulated obstructions and particularly those in which bowel perforation has occurred with general peritoneal contamination may produce toxemia, but the toxemia is due to peritonitis and not to the obstruction itself.[1]

The degree of depletion of body fluid and electrolyte, both extracellular and intracellular, depends upon the site of the obstruction, duration of the period of loss and whether perforation of the bowel with resultant peritonitis has taken place. As a general rule the higher the obstruction and more prolonged the period of distention and vomiting, the greater will be the loss. The clinical picture may vary, therefore, from the patient showing no signs of dehydration to the individual who is in severe shock or moribund from the loss of body fluids.

All attempts at replacement of the constituents of the extracellular and intracellular fluid compartments lost in intestinal obstruction must be geared to the history and the clinical picture presented by the patient. Too much emphasis cannot be placed upon the importance of using the clinical status of the patient as the primary guide in replacement therapy. Laboratory studies of the blood and urine may provide important confirming evidence as to the patient's status, but reliance upon them as an absolute guide is inaccurate and may be hazardous. Maximum accuracy is obtained by the careful correlation of all clinical and laboratory guides, with the clinical appearance of the patient being paramount in the estimation of his condition.

Electrolyte Replacement and Maintenance

Effective rules or formulae for the replacement of electrolyte cannot be offered because of the necessity of adjusting such administration to the clinical condition of the patient. The emphasis has been and still is upon the replacement of the chief extracellular ions sodium and chloride. The large losses of body fluid associated with severe and prolonged intestinal obstruction also produce depletion of the important intracellular ion potassium.

Dehydration observed in intestinal obstruction is of the mixed type containing components of both water and electrolyte dehydration. When

TABLE I. SYMPTOMS AND PHYSICAL SIGNS PRODUCED BY LOSS OF TWO TO SIX PER CENT OF BODY WEIGHT AS EXTRACELLULAR SALT WATER

Two to 4 Per Cent Loss of Body Weight as Extracellular Salt Water	Four to 6 per cent loss of Body weight as Extracellular Salt Water
Anorexia	Aggravation of all signs and symptoms found in 2-4 per cent body weight loss
Apathy	Retching
Weakness	Orthostatic hypotension
Reduced affective responses	Tachycardia
Nausea	Wrinkled tongue
Vertigo	Marked loss of tissue turgor
Soft pulse	"Putty" like muscles
Diminished peripheral venous filling	Soft eyeballs
Variable changes in blood pressure	Shock
Loss of tissue turgor	

manifest symptoms and signs of severe dehydration are present, between 4 and 6 per cent of body weight has been lost as water and electrolyte (Table I). This offers a clinically effective index as to the quantitative amount of repair fluid that may be necessary for repletion. In the absence of shock or hypotension, replacement should be started with a 0.6 per cent sodium chloride solution rather than 0.9 per cent, as it is felt that this solution is handled more physiologically by the body and provides immediate water for insensible loss through the skin and lungs as well as water to aid in the formation of urine. If hypotension and shock are present due to sodium chloride depletion, then the administration of a 1.5 to 2 per cent sodium chloride solution combined with blood transfusions is indicated until the blood pressure is brought to satisfactory levels. Repletion can then be continued with the 0.6 per cent solution.[10]

When adequate repletion has been obtained, maintenance of electrolyte balance is usually less difficult but just as important as repletion. Volume for volume replacement of the extrarenal loss of body fluids, excepting insensible loss, with lactated-Ringer's solution is a satisfactory working clinical guide.[1]

General improvement in the patient's clinical condition, diminution of signs of electrolyte dehydration, reappearance of adequate urine output containing satisfactory amounts of chloride, and the re-establishment of normal levels of blood electrolyte and pH—all present positive evidence as to the effectiveness of treatment.

Potassium, the chief intracellular electrolyte, is lost in significant amounts when large volumes of gastrointestinal secretions are aspirated or lost by vomiting or diarrhea. Furthermore, it has been observed that the administration of sodium chloride solutions used for repair can further increase potassium loss.[8] The importance of replacing this physiological important potassium has not been thoroughly appreciated until recent years, and considerable attention is now being given it in surgical literature. Experimentally, it has been demonstrated that the lives of dogs with pyloric obstruction can be significantly prolonged beyond that reasonably anticipated from the use of sodium chloride when potassium salts are added to repair solutions.[2] Potassium salts should be added to the repair solutions, after adequate urinary output has been obtained, to aid in the restoration of intracellular water and electrolyte. The oliguria associated with uncompensated large losses of body fluids may make the immediate administration of potassium salts hazardous because of the danger of heart block when serum potassium levels approach 10 to 12 milli-equivalents. Two to 6 grams of potassium, either as the chloride or a combination of the monobasic and dibasic phosphates, may be added to the repair solutions daily.

Water Repletion and Replacement

The status of water hydration is closely allied to the quantitative available electrolyte, as total body water is dependent upon total body salt. Additional water is necessary, however, to provide for the insensible loss through the skin and for the formation of sufficient urine. Water for this purpose should be given as 5 per cent glucose in distilled water as the administration of sodium salt solutions necessitates the "distillation" of water by the renal excretion of the excessive salt, a process that is often inefficient in the sick patient. Dependent upon the environmental and body temperatures, insensible loss ranges from 1000 to 2000 c.c. per day. During hot weather it may be much greater. Another 1000 c.c. of fluid or more is necessary to insure adequate formation of urine.[1]

It has been pointed out by Wangensteen[12] that careful weighing of patients preoperatively and postoperatively affords valuable information as regards too rapid depletion or accretion of total body water. Scales for this purpose are accurate to within 100 grams. In obstructed patients, however, whose hydration at the time of hospitalization may be far from normal, this method has diminishing value. When dealing with normal kidneys, a most accurate index of water needs may be

obtained by the urinary specific gravity. If the specific gravity is less than 1.020, it is reasonable to assume that the kidneys are getting adequate water to perform efficiently. If the specific gravity is greater than 1.020, the kidney may not be obtaining enough water to work with, and further administration of fluids is indicated.

It is obvious that during a period of repletion and subsequent maintenance of a seriously dehydrated patient that several liters of electrolyte and glucose solutions, together with blood and/or plasma, must be administered. There are hazards of overhydration particularly in older patients and those with poor cardiac reserve. Symptoms of overhydration must be carefully watched for and the administration of fluids slowed or discontinued as may be necessary (Table II).

TABLE II. SYMPTOMS AND PHYSICAL SIGNS PRODUCED BY ABSOLUTE WATER AND/OR SALINE EXCESSES

Absolute Water Excess	Saline Excess
1. Due to extrarenal excretion of excess water:	Disorientation
Salivation	Anorexia
Lacrimation	Nausea
Non-projectile vomiting	Vomiting
Diarrhea	Hoarseness
Intracutaneous edema	Heavy eye lids
	Diminished urine flow in relation to intake
2. Due to increased intracranial pressure:	Subcutaneous edema
Headache	Pulmonary congestion
Disorientation	Edema of parenchymal organs
Muscle twitching	Ascites
Bradycardia	Hydrothorax
Vomiting	
Nausea	
Elevated blood pressure	
Anorexia	
Increased spinal fluid pressure	
Convulsions	
Coma	

Acid-Base Balance

Because of the disparity of the relative concentration of sodium and chloride in certain gastrointestinal secretions, as compared to blood plasma, their loss may produce an increase or decrease of blood pH depending upon which ion has the greatest loss. Most acid-base disequilibrium states in intestinal obstruction are of the metabolic type. It is therefore reasonable to assume that a fairly accurate estimate of the severity of "acidosis" or "alkalosis" may be obtained from determination of the CO_2 content of the blood. When present, severe compositional changes of this type should receive early and vigorous treatment. Alkalosis, as manifested by increased blood pH and carbon dioxide content, will respond, in the majority of cases, to Ringer's solution without added lactate, normal equilibrium being established as repletion is completed. Extremely severe alkalosis may require the administration of 0.9 per cent ammonium chloride solution, but these cases tend to be unusual. It should be remembered that potassium deficits may be associated with high refractory carbon dioxide content of the blood and that correction of the alkalosis is obtained only when potassium salts are administered.

Acidosis, manifested by low carbon dioxide content and lowered blood pH, may be treated by a one-sixth molar solution of sodium lactate provided that shock or liver damage is not present. The administration of sodium bicarbonate as a 1.3 per cent solution will be necessary to combat acidosis in patients in shock or who have severe liver damage, as sodium lactate is inefficiently utilized when these conditions are present.

Plasma and Red Blood Cell Administration

With strangulation, thrombosis or embolism of the blood vessels there will occur a loss of blood that is always serious and may decide the issue. In other forms of obstruction a better understanding of the acute serum protein deficits and red blood cell losses in intestinal obstruction has emphasized the necessity of their replacement during both the repletion and maintenance periods. In the presence of severe sodium salt depletion the total circulating protein diminishes at approximately the same rate as the volumes of plasma and the extravascular extracellular fluid do. Large losses of extracellular salt water are associated, therefore, with losses of plasma protein. The rapid reconstitution of extracellular fluid volume without replacement of this plasma protein loss is to invite loss of vital intravascular fluid into the interstitial spaces, with resultant edema, because of increased capillary hydrostatic pressure and decreased colloid osmotic pressure. At least 500 c.c. of blood, therefore, should be given with each 3000 c.c. of repair fluid when repleting large losses of body fluids.

Acute protein loss may be further augmented by loss into the edematous bowel wall and transudation into the intestinal lumen and peritoneal cavity. Repeated transfusions of blood and/or plasma may be necessary to replete such acute protein deficits. If peritonitis has followed bowel perforation, there are even greater losses of blood proteins, and generous transfusions of both plas-

ma and blood will be necessary to maintain the plasma volume and the circulating red blood cell mass.

Summary

1. The important lethal factor in simple intestinal obstructions is dehydration and bowel distention. Toxemia probably does not exist.

2. Knowledge regarding fluid and electrolyte balance in intestinal obstruction has been importantly advanced, but many aspects remain poorly understood because of inadequate understanding of the dynamics of fluids between the various body fluid compartments.

3. The repletion and maintenance of the various extracellular and intracellular constituents lost in intestinal obstruction have been discussed.

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A PROPOSED STUDY OF PREMATURITY AND CONGENITAL MALFORMATIONS

Premature birth has appeared as one of the ten leading causes of death in Minnesota for a number of years. During 1949 congenital malformations entered the picture as the tenth leading cause of death in the State. The appearance of congenital malformations in the leading causes of death apparently resulted from the rapid decline in the number of deaths attributed to tuberculosis, formerly in tenth place and the increase in the number of live births in recent years. There has been no appreciable increase in the congenital malformation death rate during the past two decades. The rate has varied between 4.6 and 6.5 per 1,000 live births since 1930. Slightly more than 80 per cent of all deaths due to congenital malformations occur within the first year of life. Over 93 per cent of the deaths attributed to premature birth occur within the first week of life.

Because of the importance of prematurity and congenital malformations in the infant death picture, the Division of Vital Statistics, under direction of the Division of Maternal and Child Health, is conducting studies relating to these two causes of death. The new birth certificate form, adopted in Minnesota at the beginning of 1950, affords basic statistical information for this study. Weight of the child, weeks of gestation and the presence of congenital malformations are the basic items being studied. Information regarding the existence of congenital malformations for all births has been made available for the first time during 1950. All information contained in the medical portion of the birth certificate is confidential in nature. It is used for statistical purposes only. When certified copies of the birth record are issued, the medical portion of the record is not filmed. It is vitally important that physicians and others completing the birth records understand this fact clearly.

Information being tabulated at the present time according to weight include:

1. Color of the parents
2. Single or multiple births
3. Attendant's specifications regarding full terms or prematurity
4. Birth order of the child
5. Presence or absence of congenital malformations

The birth data are tabulated in weight intervals of one pound except for the five-pound interval which is divided between five pounds, eight ounces and under—five pounds, nine ounces and over. Infants weighing ten pounds or more are tabulated as a single interval. Special studies will also be made regarding the survival rate of infants reported to have congenital malformations.

The aim of the present study is to obtain as accurate a picture as possible of the premature and congenital malformations problem existing in Minnesota. The study will be extended for a number of years. Its value is dependent largely upon the care and accuracy with which the birth records are completed by the attendant. Special appeals are being made to physicians and hospital groups to give careful attention to the statistical section of the birth record.

Minnesota Department of Health
Division of Vital Statistics
J. W. Brower, *Acting Director*

PRIMARY INTESTINAL ANASTOMOSIS

I. S. RAVDIN, M.D., and WILLIAM DeMUTH, JR., M.D.
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FEW surgeons have contributed as much to our knowledge of the pathologic physiology of gastrointestinal disease as has Owen H. Wangensteen. To him, and to those who have worked with him, American medicine is indebted for innumerable contributions which have extended our knowledge of a wide variety of gastrointestinal disorders. Among the most important of these contributions was the work from his clinic on the importance of relieving gastric and intestinal distention by intubation without recourse to operation. It was not Doctor Wangensteen's fault that many surgeons failed to heed his admonitions regarding the necessity of early operation when signs of gangrene were present, or when intubation failed to provide significant relief from serious symptoms. These faults can be ascribed to the frailities of man, and our profession is not free of them. Intestinal intubation, as introduced by him and extended by T. Grier Miller and William Osler Abbott, has reduced the morbidity and mortality of many diseases and procedures which the surgeon daily encounters in his work.

Our initial experience with long-tube intubation in the management of small and large bowel lesions was reported by Abbott and the senior author[5] just a decade ago. At that time twenty-six primary anastomoses of small and large bowel had been done without the use of surgical proximal decompression procedures. A death from coronary occlusion represented the only mortality in this group.

Our enthusiasm for this method has not lessened since that time. The results during the past decade lead us to believe that resection and primary anastomosis has proven to be a safe operation in many patients requiring excision of segments of the small or large bowel. Prior to 1946, however, primary anastomoses following resections, especially for large bowel lesions distal to the hepatic flexure, were done relatively infrequently in this clinic.

During the past five years there has been a steady and marked increase in the number of primary anastomoses following bowel resection, regardless of location of the lesion. Ileocolostomy, without exteriorization procedures, in by-passing unoperable large bowel cancers, has likewise become much more common. Strangulations secondary to volvulus, mesenteric thrombosis and obstructed hernia, certain instances of intussusception, obstruction due to adhesions, isolated inflammatory processes, malignancies, and traumatic injury, when found in the small bowel, are all lesions which, we feel, are in general best treated by resection and primary anastomosis. The marked electrolyte disturbances secondary to large losses of intestinal fluids are thereby obviated, and the time required for secondary anastomosis is saved.

This approach has resulted in a lower morbidity and a need for fewer hospital days for patient care. In most instances when simple obstructions, partial or complete, are present which require a resection, we now find it possible to do a primary anastomosis following resection of the involved bowel. Constant suction internal drainage makes this not only feasible but safe. An understanding of the pathologic physiology of bowel distention leads to a rational program of treatment. Wangensteen,[8] in his excellent monograph on "Intestinal Obstructions," discusses the ramifications of the effects of distention and states ". . . the mechanistic conception of the ill consequences of obstruction provides better interpretation and a more acceptable explanation of the phenomena and end effects which attend bowel obstruction than does the toxic absorption theory." Whether one agrees with this statement or not, distention is all too frequently the motivating factor initiating a train of events which results in death. The control of distention is the clue to successful preparation of the bowel for primary anastomosis. The integrity of the anastomosis depends upon the condition of the wall of the obstructed bowel which has or has not been well prepared preoperatively. The dilated, grossly dirty bowel hav-

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ing a poor blood supply provides poor material for a successful anastomosis.

If primary anastomosis is to be safe without proximal external drainage, marked degrees of distention must be avoided. By using the long intestinal tube to prepare the bowel preoperatively, and to protect the suture line postoperatively, we believe that staged operations are no longer necessary in many cases which heretofore have been so treated. Cecostomy, appendicostomy, colostomy, and enterostomy are being used less and less by us, either before or at the time of operation. Even in patients with a high-grade partial large bowel obstruction we are doing more primary resections and anastomoses than proximal colostomies, This trend is reflected in the results of the survey made by Rankin[4] in which only 30 per cent of a considerable number of surgeons questioned employed appendicostomy, cecostomy, or colostomy regularly either before or at the time of resection of the distal colon or rectum.

Preoperative Preparation of the Obstructed Patient

In suspected strangulated obstructions, shock, if present, is immediately combated by the use of blood and plasma while arrangements for early operation are being completed. The administration of sedatives must be attended by considerable caution. The marked colicky pain often associated with high-grade obstruction may lead one to use opiates excessively. Pain stops when decompression is adequate, and its presence casts suspicion on the fuctioning of the tube. If shock is present, delayed absorption of the drug may give late marked depression of the central nervous system and of respiration. The exquisite tenderness so frequently present in strangulation obstruction may be so lessened as to result in an unfavorable delay in operation in the belief that a simple obstruction is present. Once the general condition of the patient is rendered sufficiently good to stand a surgical procedure, the operation should not be delayed. If such response is not prompt following the infusion of blood or plasma, one should not further delay operation, since not infrequently release of the obstruction is the only thing which will result in improving the patient's condition.

A scout film of the abdomen is made as soon after admission as possible to determine the approximate site of obstruction. Localization of the lesion will in the majority of instances be made by correlation of roentgenographic findings, history and physical examination.

Intubation.—The Miller-Abbott tube is then passed into the stomach and the stomach emptied by aspiration. By using 3.0 c.c. of mercury in the balloon of the tube and by placing the patient in the right lateral decubitus position, we have been successful in getting the tube beyond the pylorus in a high proportion of obstructed patients. Fluoroscopy is a great help. Those with high-grade small bowel obstruction are not infrequently difficult to intubate. After the tube enters the duodenum, constant suction is applied, and the balloon is inflated to effect passage of the tube toward the point of obstruction. When the obstruction is reached, the balloon is deflated.

The relief of distention preoperatively serves a twofold purpose. The general condition of the patient is frequently dramatically improved, and the local improvement in the bowel wall makes the possibility of a definitive procedure much more likely at the time of operation. Van Zwalenburg's[7] conclusions concerning the vascularity of distended bowel are still valid, and if primary anastomoses shall heal without leaking, the blood supply to the involved segments of bowel must not be compromised. The danger of leakage at the relatively weak suture line with increased intraluminal pressure is a real one.

If, as occasionally occurs, the long tube does not function, we do not hesitate to replace it by a Levine tube to facilitate decompression (Wangensteen and Paine.[9]) Our preference for long-tube intubation was set forth[5] ten years ago. This method in our hands has been most satisfactory.

A competent ileocecal valve effects a closed loop obstruction if the obstruction is in the large bowel. The tube must enter the cecum if distention under these circumstances is to be relieved. The ileocecal valve often will not admit the tube, and operation is depended upon for relief of distention.

Cleansing of the Bowel.—D. F. Jones[3] stressed the fact that an empty clean bowel was one of the best safeguards against postoperative peritoneal infection. If the local condition of the bowel permits one to delay operation for several days, we feel that mechanical cleansing and the reduction

in the number of bacteria residing in the bowel can and should be accomplished. The program we presently employ requires five days immediately before operation.

In cases of anticipated large bowel resection the patient is given an enema of tap water daily. Mild purgations in the form of milk of magnesia or magnesium sulfate solution are also used daily. A low residue diet is given through the day prior to operation. Sulfasuxidine, 0.25 gram per kilogram of body weight, is given by mouth daily in four divided doses. Two days prior to operation 0.5 gram of streptomycin is administered by mouth twice daily. The Miller-Abbott tube is passed forty-eight hours before operation, and the sulfasuxidine and streptomycin are administered by mouth with the Miller-Abbott tube in place. Studies[6] of the bacterial flora of the large bowel carried out in this hospital before and after the administration of sulfasuxidine and streptomycin have been convincing, and we routinely employ these agents. We do not feel that the use of these drugs should supersede in importance the gross cleansing of the bowel.

Blood transfusions are given preoperatively as blood volume, hemoglobin, and serum protein determinations indicate.

Technique

Only general principles of operation will be discussed.

When dealing with malignancies of the large bowel, we believe that the wide mesenteric resection with wide resection of the involved bowel is mandatory. Gilchrist and David's[2] monumental study leaves little doubt concerning this.

Secondly, we prefer the open technique of intestinal anastomosis. We feel that the accuracy of apposition of the bowel ends is better with open anastomoses than with closed techniques and less bowel is turned in. A clean bowel affords little danger of peritonitis due to contamination at the time of anastomosis. The gross contamination incident to a leaking suture line is a far greater hazard.

In general, end-to-side anastomosis is used in the ileocolostomy following resection of the right colon. End-to-end anastomosis is routinely used following segmental resections in both the small and large bowel.

A double suture line technique is followed. Very fine chromic catgut is used for mucosal approximation, and an interrupted silk suture line is used in the seromuscular layer. Crushed tissue is excised, and under no circumstances is such tissue incorporated in the suture line.

Gentle handling of the bowel is mandatory. Great care must be exercised in preserving the blood supply of the bowel adjacent to the suture line.

Postoperative Care

Parenteral penicillin and streptomycin are used routinely prophylactically for at least four days. Continuous Wangensteen suction is applied to the Miller-Abbott tube until gas is passed by rectum (usually the third or fourth postoperative day). The tube is then clamped for a period of twelve hours during which time 30 c.c. of water per hour is given by mouth. If no distention results, the tube is then gradually withdrawn and clear liquids are permitted ad lib. If intestinal motility seems to be adequate, a soft diet is begun twenty-four hours following removal of the tube.

In general, blood replacement to compensate for blood lost at the time of operation has been replaced by transfusion of whole blood while the patient is on the operating table or within a few hours following operation. In the past two or three years we have tended to keep the daily volume of infused fluids to 2500 c.c or less. Sodium chloride intake is rigidly restricted. This is especially important in the aged. As Coller and his associates[1] have shown, it is easy to err in giving excessive fluid and salt in the early postoperative period with resulting serious complications. Ascorbic acid, vitamin K and the B-complex vitamins are given postoperatively during the period of parenteral feeding.

The majority of our patients are made ambulatory on the first postoperative day.

Results

In the five-year period between January 1, 1946, and December 31, 1950, exactly 394 intestinal anastomoses without external decompression were done. In all cases intestinal decompression was managed by means of the Miller-Abbott or indwelling duodenal tube with the application of Wangensteen suction drainage. No cases in which exteriorizations or obstructive type resections were done are included in this report. Thirty-eight of these patients were subjected to ileocolostomy as a side-tracking procedure in inoperable

TABLE I.

	1946	1947	1948	1949	1950	Total Number of Each Operation
Right colectomy Ileo-transverse colostomy	11	14	17	21	18	81
Transverse segmental colon resection	7	5	9	13	6	40
Left colectomy (and splenic flexure resection)	5	2	5	11	11	34
Sigmoidectomy (segmental resection and anterior resection)	5	14	16	30	30	95
Resection small bowel End-to-end anastomosis	15	23	22	23	23	106
Ileo-colostomy and Ileo-sigmoidostomy	8	7	3	7	13	38
Total	51	65	72	105	101	394

TABLE II. OPERATIVE MORTALITY

	1946	1947	1948	1949	1950	Total Number of Each Operation
Right colectomy with Ileo-transverse colostomy	0	0	0	0	0	0
Transverse segmental colon resection	0	0	0	0	0	0
Left colectomy (and splenic flexure resection)	0	0	0	0	0	0
Sigmoidectomy (segmental resection and anterior resection)	0	1*	1	1	0	3.2
Resection small bowel End-to-end anastomosis	1	0	5	3	0	8.4
Ileo-colostomy and Ileo-sigmoidostomy	0	1	0	1	1	8.0
	Over-all Mortality					3.8

*Patients in whom failure of anastomosis was found at autopsy.

lesions of the large bowel. In the remaining 356, resections were done with primary anastomosis.

Table I shows a distinct trend toward anastomosis without concomitant or preliminary surgical decompression or exteriorization procedures. In both 1949 and 1950 the total number of such operations was approximately twice those done in 1946. It will be noted that left-sided colon lesions are now being resected and the bowel ends anastomosed at the same operation with increasing frequency. In dealing with right colon lesions one-stage right colectomy with ileotransverse colostomy is the only procedure used in operable lesions. This has been the policy in this clinic since 1938.[6] Whipple[10] reported favorable results with similar management in such cases in 1940.

The number of small bowel resections has remained relatively constant year after year.

Mortality.—Sixteen patients (Table II) in this group of 394 died during the thirty days following operation (3.8 per cent). Postmortem examinations were obtained in nine of these cases. A leak at the line of anastomosis was established in but one case. This patient had had an anterior resection for a lesion low in the sigmoid colon.

Coronary occlusion, pulmonary embolism, uremia, bronchopneumonia, and cerebral thrombosis were named as the other causes of death.

The highest mortality occurred in those patients having small bowel resection following mesenteric thrombosis. Progression of the underlying disease has usually been responsible for death.

Two deaths in the ileocolostomy group occurred in patients in which widespread peritonitis occurred due to perforation of the primary lesion. In another, extensive metastasis was responsible for death.

Discussion

There can be little doubt that the primary establishment of intestinal continuity, at the time of bowel resection is the ideal operation. This is so, however, only if function is rapidly regained and if morbidity and mortality are as low as with multi-stage operations. Saving the patient a second anesthetization and operation reduces the inherent risk. Our single death from peritonitis following the single stage resection demonstrates that in patients properly prepared infection from leakage is no longer a common cause of death.

The outlined preoperative preparation, we believe, is advantageous even when primary resection is not possible or even contemplated. The clean bowel possessing a good circulation is better handled in any operation deemed necessary at the time of laparotomy.

A few statements concerning the limitations of this method should be made. If there is ever any doubt about the presence of strangulation, prompt laparotomy is indicated. Acute colon obstructions with major proximal distention should not be so treated. Surgical decompression is necessary. In many such instances resection with anastomosis is possible, but in any case the removal of the segment of devitalized bowel should be the first consideration. Intubation will aid in the postoperative period. It will make the patient more comfortable and it will add to the safety of the operation.

Resection with primary anastomosis in the treatment of malignancies should never be done to permit of a limited excision of bowel and mesentery with the goal solely of re-establishing intestinal continuity. Our philosophy is in accord with that of Gilchrist and David, who so aptly stated[2] that the point of discussion in treatment of large bowel malignancies should be, "Can you remove all the cancer?" and not, "Can you sew two ends of bowel together." However, the most extensive excisions above the lower sigmoid lend themselves to this procedure. Intraperitoneal lesions below the sacral promontory are treated by one stage abdomino-perineal resection.

Ravdin and Abbott,[5] and Whipple[10] and others have stressed the importance of experience in the successful management of the Miller-Abbott tube. The possible dangers must be recognized. The use of fluoroscopy in passing the tube beyond the pylorus, the proper adjustment of the balloon, and the interpretation of the results of suction drainage cannot safely be the responsibility of inexperienced personnel. Fumbling in the early stages of acute obstruction can make the difference between success and failure in the passage of the tube into the distal small intestine.

It is obvious that the concept of primary anastomosis embraces more than the accurate approximation of two bowel ends. Intestinal suction-drainage, the use of chemotherapeutic agents, the infusion of blood and fluids, the correction of protein and vitamin deficiencies and the correction of electrolyte imbalances are all important adjuvants to complete therapy, and they have made possible a more direct and safe attack on lesions requiring intestinal resection and anastomosis.

Summary

Results obtained in the five-year period between January 1, 1946, and December 31, 1950, in 394 patients in whom primary intestinal anastomoses accompanied by intubation and suction drainage as the sole source of decompression are reported. Intestinal resections were done in all but thirty-eight of the reported cases.

The over-all mortality was 3.8 per cent.

Primary anastomosis following resection of bowel segments, or used alone in bypassing inoperable lesions, is a safe, rational procedure which saves the patient both time and prolonged incapacity. In the treatment of cancer it in no way modifies the radical approach to the eradication of the disease.

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WORLD HEALTH ORGANIZATION

More than 250 fellowships will be awarded this year by the World Health Organization to medical and allied personnel throughout the world for advanced study.

Technical and teaching personnel from WHO member states with at least two years of experience in the field in which the fellowship is sought are eligible for the WHO awards. Applications are made to WHO through the applicant's government.

The World Health Organization has already awarded approximately 800 fellowships in a variety of fields. These include, for example, public health administration, communicable diseases, nursing, maternal and child health, internal medicine, and surgery.

The Pan American Sanitary Bureau, Regional Office of the World Health Organization, awards from its own budget, additional fellowships for public health trainees in the Americas. During the past year the Bureau granted some thirty-five fellowships for studies extending from several weeks to a full academic year. This is in addition to the financing by the Bureau during 1950 of shorter-term training courses for more than eighty men and women in serological laboratories and a public health nursing workshop.

PROGNOSTIC FACTORS IN COLONIC MALIGNANCY

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I WAS delightfully overwhelmed when your secretary asked me to take part in this meeting honoring Doctor Wangensteen. I should like to think that the invitation to participate in the program this evening was extended because you, in some manner, consider my ability as a surgeon on a parity with that of the honored guest. But, since this is not true, I must deflate my ego and realize that I am here because Owen Wangensteen has been my esteemed close friend for twenty-five years. What greater honor could I ask?

Upon his return from the Western Surgical Association meeting in Denver in 1931, the late Dr. E. Starr Judd informed me that the outstanding presentation at that meeting was a paper by Doctor Wangensteen in which he reported three cases of mechanical obstruction of the bowel successfully decompressed by means of nasal catheter suction-siphonage. We are all familiar with the great advances that have stemmed from this epoch-making work and the devices Wangensteen has developed for the management of obstruction of the bowel. We are aware too of the value of the Wangensteen tube in the preoperative and postoperative patient. It must be a constant satisfaction to Dr. Wangensteen to realize that the procedure he advocated and carried out twenty years ago has world-wide acclaim to this day.

On this occasion I have chosen to discuss prognostic factors in colonic malignancy.

It is timely, I feel, to mention here that Wangensteen's contribution on the management of intestinal obstruction might have passed into oblivion for the reason that almost all of our national medical journals turned down his early manuscripts on the subject. Perhaps they were too lucid and therefore were returned as "not of general interest." But Owen was firmly convinced that he had found something of value, and today even editors of medical journals recognize his outstanding work on intestinal obstruction as well as in many other fields.

Read at the meeting of the Minnesota Academy of Medicine, Saint Paul, Minnesota, December 13, 1950. The assistance of Dr. John D. Rosin in the preparation of this paper is acknowledged.

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The past two decades have witnessed great advances in the prognosis of carcinoma of the colon from the standpoint of mortality, morbidity and five-year survival. Although some advance has been made for the cause of earlier diagnosis of malignant lesions of the colon through cancer detection centers, repeated pleas at medical meetings and writings in both the lay and professional press, the percentage of early cancers diagnosed still is too low. The simple diagnostic methods should be familiar to all. They are not new. Digital rectal examination of growths in the rectum was advocated six hundred years ago by Master John of Arderne with these words: "And thus shall ye recognize it. Ye shall put your finger in the rectum." Professor Strauss of Berlin invented and developed an electric sigmoidoscope a half century ago. Insufflating air into the colon after evacuation of the barium has been known and practiced for a quarter of a century. Neglect to perform these maneuvers by the physician is much too frequent, and every effort should be made to encourage physicians to follow the advice of John of Arderne.

The medical profession cannot assume all of the responsibility for this failure of early diagnosis. The patient must initiate the process leading to the detection and treatment of cancer. King and Leach, of Memorial Hospital, New York, undertook to determine some of the "whys" of delay in seeking medical care. They found the greatest tendency toward delay among the following groups of patients: (1) patients whose established reaction to previous illness had been to seek medical advice only when having an acute discomfort or pain; (2) those who interpreted their illness as being a common illness or a recurrence of some previous illness (bleeding of hemorrhoids, and so forth); (3) patients whose chief attitudes toward medical care were fear of the examination, fear of knowledge, or fear of surgical intervention or of disfigurement; (4) patients who believed that their financial resources were inadequate to permit payment for medical care.

A long, painstaking educational process will be required to remedy these conditions. Experience

has shown that prompt diagnosis and therapy will reduce morbidity and mortality. The debilitating effect of delay on the part of the patient can be overcome by an educational program which will make the prospective patient not want to delay.

We shall all agree that time remains the greatest single factor that influences the final result in the individual case of malignancy: the time between initiation and discovery of the malignant process, and the time between discovery and adequate removal of the lesion. At some time, regardless of the patient's age and heredity and the location, grade or type of malignant lesion, cancer of the colon for the most part is curable. Visceral cancer is a silent disease. The period necessary for the transformation of normal epithelial cells from a normal mucous membrane into malignant cells is not known. The length of time before invasive features cause the appearance of symptoms is variable, perhaps averaging about a year. If digital and endoscopic examinations are performed as a routine on every patient, a larger number of persons will come to operation when the lesions are silent and curable by surgical means. Seventy-five per cent of lesions of the colon and rectum are within reach of the finger and the sigmoidoscope.

There are certain prognostic factors peculiar to the patient. It is well known that patients in the younger age groups have a poorer prognosis as a whole than do members of the older age groups, regardless of the grade of the lesion. In the young the grade of the malignant lesion tends to be higher and metastases occur earlier. Many physicians are not on the alert for colonic malignant lesions in patients under the age of forty years, although 11.5 per cent of the malignant lesions of the large intestine seen at the Mayo Clinic between 1907 and 1938[3] occurred under the age of forty years.

Associated colonic disease influences prognosis. In 100 per cent of cases of multiple polyposis of familial origin, if neglected, multiple carcinomas will develop, as a rule while the patient is still young, and with a most unfavorable prognosis. Multiple asynchronous primary carcinomas of the colon occur in 3 to 5 per cent of cases, indicating that a thorough exploration must be made at each laparotomy. With another disease of younger persons, chronic ulcerative colitis, carcinoma develops more often than for the population as a whole. Here also the outlook is poor.

The recurring visits of a patient who has been diagnosed as having a "tension state" or "anxiety neurosis" or as having an irritable bowel syndrome may lull us into a diagnostic lethargy, and we may overlook a developing malignant lesion of the bowel or diagnose it too late. Complete physical examination should be made at regular and definite intervals, in order to protect ourselves and to reassure the patient.

There is no advantage to obesity either from a social, economic or medical point of view. This applies also to obesity in cases of malignant lesions of the colon. Not only does carcinoma tend to spread faster if the patient is obese, but the presence of infection, even in a mild degree, makes the risk materially greater. Given the same pathologic process in two patients of equal age and otherwise equal chances, one finds that the obese patient presents a greater operative risk and has a poorer outlook from the standpoint of ultimate cure.[11]

The older patients, in whom malignant lesions of the colon are most frequent, are in the same age span in which the degenerative diseases of cardiovascular and cardiorenal origin predominate. These concurrent conditions are of prognostic value when considering survival rates and operative procedures.

The findings of the surgical pathologist are of inestimable value when considering the prognosis in any individual case of a malignant lesion of the colon. Broders' classification of the grade of the malignancy and Dukes' classification of the extent of spread are wonderful aids in placing cases in categories. As a rule the prognosis is worse as we ascend the numerical grade of malignancy and descend the alphabet in extent of spread. Nevertheless there are a sufficient number of exceptions to these classifications to encourage one to undertake radical operations in the hope of salvaging some of the patients.

Venous penetration and perineural involvement are factors not diligently sought for by most surgical pathologists. When present, they foretell a very grave prognosis: 95 per cent of the patients concerned will succumb within five years.[12] These factors can explain the poor outcome in a case even though the lesion is small, freely movable, of low grade according to Broders' classification and of a favorable type of Dukes' classification.

The published studies on lymphatic spread of carcinoma of the left colon and rectum by West-

hues in the early thirties have been corroborated and extended during the past two decades by the painstaking and meticulous study of pathological specimens by several reputable individuals and clinics.[1,4-7] These special studies have confirmed the great importance of upward spread and have led to the proper evaluation of lateral and retrograde lymphatic involvement. The usual route of spread of cancer is by way of the lymphatics accompanying the superior hemorrhoidal vessels. The spread may be discontinuous, and involved nodes may be found many centimeters proximal to the lesion. Lymphatic spread more than 1 cm. distal to the primary lesion does not occur until proximal lymphatics are blocked, and in any case, distal spread is not extensive. Lateral spread, through lymphatics that course along the levator ani muscle and accompany the middle hemorrhoidal vessels, does not occur as a rule when the distal edge of the lesion is higher than 6 cm. above the dentate line.

The site of the malignant lesion is an important factor when considering the prognosis. In general, right-sided colonic malignant lesions have a better prognosis than left-sided lesions, both in cases with and in those without nodal involvement; in both groups the five-year survival rates show an average difference of about 10 per cent in favor of cases in which the lesions are in the right colon. It is the impression of many surgeons that the better prognosis of right-sided lesions is due to the fact that a right colectomy is routine for these tumors whereas segmental resection is employed for removal of left-sided lesions. A recent innovation is left colectomy for left-sided lesions. Time and statistics will determine whether this added surgical risk can improve the present mortality and survival rates.

True cecal lesions have a poorer prognosis than those occurring in the ascending segment. This has been interpreted on the basis that the resections for cecal lesions have not been as extensive as those for lesions in the ascending segment, that is, they have not been carried around to the mid-transverse colon.

Both the hepatic and splenic flexures are blind spots for the average roentgenologist, and lesions located in these sites may not be detected even when roentgenologic examination has been performed after administration of a barium enema. If clinical symptoms indicate a lesion to be present, an exploration is warranted even if the roentgenograms are negative. The flexures are also more difficult to handle surgically than other segments of the colon because of the great tendency of lesions in these sites to infiltrate the stomach and other vital organs. Lesions of the transverse colon can be included in this last statement.

Tumors of the descending colon and sigmoid have a great tendency to produce obstruction, owing mainly to the smaller calibers of the lumina as compared with the caliber of the right colon. The poorer prognosis of obstructing lesions than of other lesions is well known.

Lesions of the lower two-thirds of the rectum have a poorer prognosis than those of the upper third of the rectum and lower sigmoid mainly because lateral lymphatic spread and local extension to the bladder, prostate or vagina make the disease difficult to eradicate surgically. It is for this reason that I have advocated and practiced radical posterior resection in the Kraske position following previous abdominal exploration and performance of a colostomy. With this operation a hysterectomy or prostatectomy can be done if necessary.

The tremendous advances in the preoperative and postoperative care of patients have demonstrated how important these clinical factors are to the prognosis. They were considered of such significance that many years ago a separate service was organized at the Mayo Clinic for the care and treatment of intestinal obstruction and colonic diseases, which was under the joint supervision of internists and surgeons especially interested in these conditions. This step alone materially favored the prognosis.

In the summer of 1931, Wangensteen began to emphasize the successful decompression of mechanical obstruction of the bowel by nasal catheter suction-siphonage, and a great advance in the preoperative and postoperative care of patients was founded. Malignant lesions of the colon, and especially of the left colon, are frequently accompanied by varying degrees of chronic obstruction and, on occasion, of acute obstruction. The greater the obstruction, the poorer is the prognosis. When there is complete obstruction, the five-year survival rate is twice as poor as when obstruction has not been present.[10] When the ileocecal valve is competent, a closed-loop obstruction results and an emergency colostomy is the treatment of choice, although nasal suction is a valuable adjunct. Nasal

suction has its greatest value in colonic surgery as a postoperative prophylactic measure to combat distention and to protect the anastomosis.

The better understanding and appreciation of the physiology and biochemistry of the body fluid compartments, along with the rational replacement and control of the body electrolytes, have favorably influenced prognosis. The development of blood banks made the correction of anemia easier and enabled more extensive surgical procedures to be performed. The investigation of substances other than blood and plasma to combat shock is constantly being carried on at the Mayo Clinic. Such substances as dextran, periston and plasmoid have proved of value and probably will become other adjuncts to safer surgery.

The advent of chemotherapeutic drugs and later the discovery of antibiotics are the highlights of the past decade. During 1939 and 1940 the hospital mortality rate associated with operations on the colon decreased by more than 50 per cent, and this improvement in rate coincided with the first use of sulfonamide drugs in the peritoneal cavity. In 1942, sulfasuxidine was introduced and demonstrated that it was capable of reducing the bacterial content of the bowel many thousandfold. These earlier chemicals and antibiotic agents have now been replaced by better ones, and even better ones may be anticipated in the future. Dearing and Heilman have recently published results of a comparative study of various antibacterial agents on the intestinal tract in man. Their conclusions were that aureomycin and terramycin are superior to all others. At present we are using these drugs exclusively in the preoperative preparation of patients who are to undergo operations on the colon.

It is the summation of all factors determined preoperatively and at the time of operation, by both the surgeon and the surgical pathologist, that influences the surgeon's judgment as to what technique he shall employ and the extent of the resection indicated in the individual case. The size of the tumor exerts little influence on the ultimate prognosis. Of much greater importance in the eventual outcome is the degree of extension and penetration. Cases requiring extensive surgery have a mortality rate at least double that for cases in which the lesions are confined to their primary site.

The development of multiple-stage procedures for surgery of the colon was the result of necessity to overcome the practically prohibitive mortality rate associated with colonic surgery. The three-bladed clamp and the defunctioning of the left colon by means of preliminary colostomy were great innovations. With the discovery and use of antibacterial agents the necessity for multiple stage procedures became less. One-stage operations for lesions of the colon have perhaps made more radical extirpation possible and with a reduction in mortality rate. A place for multiple-stage procedures in my opinion still is advisable under certain conditions such as obstruction, marked inflammatory reaction, unusual obesity or other technical factors which would make the operation unusually hazardous.

The experience and ability of the surgeon as prognostic factors are often lost sight of when considering the ultimate outcome of surgical procedures for malignant lesions of the colon. On the native skill, judgment and experience of the surgeon the operability or inoperability of the lesion will finally rest. The wider the experience of the surgeon, the higher will be the operability rate.

The improvements in preoperative and postoperative care of patients, the better understanding of the modes of spread of carcinoma and the more thorough training of young surgeons have permitted a broadening of the indications for radical surgical intervention and the development, revision and reintroduction of surgical technique which, it is hoped, will improve the prognosis of cancer of the colon even more.

In conclusion let me thank you for the invitation to take part in this memorable occasion.

When I think of Dr. Wangensteen and his indefatigable work in scientific investigation, his truly great mastery as a surgeon and a teacher of surgery, I cannot recall anything more fitting to his voluminous, invaluable contributions than a remark made by Louis Pasteur: "In the field of science chance only favors the mind that is prepared."

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PULMONARY AND EXTRAPULMONARY TUBERCULOSIS WITH A DISCUSSION OF THE HOST RESPONSE TO TUBERCULOSIS

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THE remarkable reduction of the death rate from tuberculosis from 200 per 100,000 in 1900 to twenty-six in 1950 has given many laymen and some physicians a false sense of security and a belief that tuberculosis is no longer a disease of major importance. Although now standing as seventh or eighth among the causes of death in the United States, it is the number one cause of death from infectious diseases and remains the chief cause of death in all individuals between the ages of fifteen and thirty-seven. Recent statistical studies have shown an actual increase in the number of clinical cases while the death rate was declining.[4] This increase is probably more apparent than real and has resulted from the application of mass survey methods to case findings. However, there has been an increase in the percentage of tuberculin reactors among American soldiers who have been overseas and among recent emigrants from Europe.[3]

The tuberculosis problem is no longer the exclusive headache of the sanatoriums and special clinic physicians but has become the headache of every internist. Data obtained by doing a routine x-ray on every patient admitted to a general hospital have been compiled from six widely scattered hospitals and reveal a rate of 1.1 per cent of active cases or a calculated total of 40,000 undiagnosed cases each year in the general hospitals of the U.S.A.[1] Then patients who present symptoms that simulate a great variety of infectious, neoplastic and functional diseases are difficult to diagnose; and it is obvious that many are not diagnosed sufficiently early to be saved by the new treatment with streptomycin or para-amino salicylic acid.

A brief review of the physiological and pathological reactions of the body to the tubercle bacilli and its products should make somewhat easier the task of the internist. The tubercle bacillus produces neither endotoxin nor exotoxin; therefore, the primary reaction of the tissues to the primary invasion of tubercle bacilli is purely a mechanical one to an inert foreign body. The nonspecific mechanical and humoral mechanism is efficient in eliminating saprophytic acid-fast *Mycobacteria*. The avian type of tubercle bacillus is almost always destroyed, and the bovine bacillus is somewhat handicapped; although it is not clear how much of the destruction of the latter two is nonspecific and how much is the result of the development of a low grade but definite humoral immunity.

The human type of bacilli finds a suitable environment for growth and multiplies at a relatively rapid rate for several weeks. During this period of unhindered growth the bacilli are carried by mechanical means, largely in polymorphonuclear cells and monocytes, to the regional lymph nodes and on through the entire lymphatic system to the thoracic duct, the heart, and out to the remainder of the body through the general circulation. The lymph nodes act as mechanical filter beds and those nearest the *point* of primary invasion will show the most enlargement. Thus, we expect enlarged hilar lymph nodes when the primary is in the lung, neck nodes from an infection through the tonsils, mesentery nodes from a primary through the intestine and local superficial nodes from any point on the skin. The *degree* of enlargement varies with the age of the patient and the quality of innate resistance. In children, it is the rule for the nodes to enlarge to a degree which is easily detectable by physical or roentgenographic examination, and in general the larger the regional lymph nodes the worse the prognoses. In adults it is the exception, rather than the rule, for the lymph nodes to be enlarged sufficiently to be detectable clinically. During the past twenty years, we have seen only three students who developed easily detected lymph nodes following the conversion of a negative to a positive tuberculin. As in children, the larger the lymph nodes, the worse the prognoses. Although the percentage of adults who develop clinically detectable lymph nodes is

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small, the total number is not insignificant, being about as frequent in a general hospital as lymphomas of the Hodgkin's type and exceeding in number such well-known conditions as hemochromatosis and Addison's disease.[9] About one-half of the patients with progressive primary tuberculosis have palpable spleens. These patients with or without enlarged spleens are usually incorrectly diagnosed as neoplasia, Hodgkin's disease, aplastic anemias, histoplasmosis, or coccidioidomycosis. Unfortunately, as the amount of tuberculosis infection in the general population decreases, more and more individuals will become adults before they receive their primary infection, and we may expect an actual numerical increase in the number of patients with progressive primary infections in our general hospital wards.[9] Before the discovery of streptomycin, the diagnosis in this type of case was purely an academic exercise, but now the difference between recovery and death may depend upon an early diagnosis and prompt treatment.

A second phase of the primary infection of clinical significance is the period of dissemination which begins when the rapidly growing bacilli escape from the lymph barriers and drain into the general circulation. Microscopic embolic foci of bacilli are trapped in the brain, bones, bone marrow, liver, spleen, kidneys and other organs and form the seed from which extrapulmonary tuberculosis develops over the succeeding years. This phase of dissemination is brought to a close after a few weeks by the development of a low grade but definite degree of humoral immunity which is nearly always accompanied by an allergy to tuberculin. There is a difference of opinion as to which of the two mechanisms is more important in reducing if not completely eliminating the dissemination of bacilli. Many investigators believe that the immunity is the result of the allergy. On the other hand, Rich[6] has presented considerable evidence for the belief that immunity and allergy are two entirely separate and distinct phenomena and that allergy is essentially a harmful reaction. One of the complications involved in the problem was the difficulty in demonstrating the presence of humoral antibodies. The ordinary humoral antibodies such as agglutinins, precipitins and complement-fixing antibodies could be demonstrated in experimentally infected rabbits but rarely in patients with active tuberculosis and almost never in patients with early minimal infection. The new serologic method introduced by Middlebrook and Dubos[5] and modified by Smith and Scott[7,8,10] detects antibodies to tuberculin or more specifically to the carbohydrate complex[5] of the tubercle bacillus. It has not been demonstrated that this antibody is a protective antibody but it occurs in patients who have had a recent subclinical infection, as shown by a conversion from a negative to a positive tuberculin reaction, and in most students who have received a BCG vaccination. At least 95 per cent of active incipients and moderately advanced cases have these antibodies in their serum, but cases of tuberculous meningitis and progressive cases of far advanced tuberculosis are usually negative. Thoroughly arrested cases also are usually negative. In a period of months or years after a spontaneous conversion the antibodies disappear while the tuberculin persists. After BCG inoculation the antibodies often persist when the tuberculin test has become negative and in a few instances antibodies have appeared in good titers although the tuberculin test never became positive. Of practical importance is the observation that the tuberculin reactions may induce the appearance of antibodies in patients who had none before the skin test was performed.[10] This irregular behavior lends support to Rich's view that allergy and immunity are different and independent phenomena although both are induced by the tubercle bacillus.

With the appearance of allergy, and the accompanying low grade immunity, dramatic changes occur in the tissues which are reflected in the clinical course of the disease. The local multiplication of bacilli in the tissues is checked and many organisms disappear. But with allergy comes inflammatory reactions which frequently go on to necrosis of tissue and caseation. Tubercle bacilli and tuberculin are no longer inert substances but become highly toxic materials for the "sensitized tissues" although still harmless for the uninfected. The local reactions are redness, swelling, pain and the constitutional reactions include fever, rapid pulse, malaise, anorexia and loss of weight. Laboratory studies show an increase in the sedimentation rate, an increase in the percentage of polymorphonuclear cells, with a corresponding reduction in the percentage and total number of small lymphocytes. The large lymphocytes and monocytes may remain normal but are frequently increased. The constitutional symptoms are in effect the result of a systemic

tuberculin reaction and can be duplicated in a thoroughly arrested healthy patient by the subcutaneous injection of a small amount of tuberculin. One of the objects of rest in the treatment of tuberculosis, both the general rest in bed and the surgical measures resulting in localized rest, is to reduce the amount of tuberculin which is absorbed from the local lesions.

Other peculiar characteristics of tuberculosis are the slowness with which resolution occurs and the extensive development of fibrosis in the lesions. The fibrosis may be interpreted as a response to the local tissue necrosis caused by local tuberculin reactions. Some of the slow resolution may be explained by the persistence of tubercle bacilli in the lesions. Tubercle bacilli, in contrast to pyogenic cocci, frequently live for years in the local lesions. But caseous lesions do persist for years after all the bacilli are dead. Tubercle bacilli synthesize *in vitro* and presumably *in vivo* unsaturated fatty acids, which are supposed to inhibit the natural autolytic enzyme systems which liquefy the infiltrates in ordinary pyogenic pneumonias. Therefore, the chronicity of tuberculosis can be explained in part by the persistence of bacilli in the lesions and in part by the difficulty the body has in autolysing and eliminating the granulomatous and caseous product of the reaction between the sensitized tissues and tuberculin.

It is very easy to demonstrate in animals the difference between a primary infection and reinfection. The reinfected animal, whose tissues are already sensitized, shows marked constitutional symptoms within a few hours after reinfection; pneumonic lesions appear in twenty-four hours and large areas of caseation can be found in ten days. More destruction is produced in the lungs and cavity formation is more common, healing by resolution is less complete and more scar tissue residues are left.[2] In animals and in man there is very little if any gross involvement of the lymph nodes in reinfection tuberculosis and the spleen is almost never enlarged. Theorectically, there should be no difference between a primary infection and a reinfection *after* the tuberculin test becomes positive because the tissues after this time are "sensitized" and react specifically to tuberculin. Practically it is impossible in many cases in adults, even with the knowledge of a recent conversion of a negative to a positive tuberculin test, to detect any difference between the x-ray lesion symptom or clinical course of a primary and a reinfection tuberculosis. In these instances there has been no gross infection of the lymph nodes with the primary invasion but the tissues have been sensitive so when tubercle bacilli again reach the lungs the allergic destructive type of lesion occurs. However, I cannot agree with the clinicians, who now constitute a majority, who teach that there is no point in trying to differentiate between primary and reinfection tuberculosis because they all behave alike. Those adults who do develop detectable lymph node enlargement following the primary have more extensive disease and a much worse prognoses than either the primary without detectable lymph node lesions or the classical reinfection syndrome.

There is a difference of opinion about the source of reinfection tuberculosis. Everyone agrees that primary tuberculosis is exogenous in origin and in most cases is inhaled into the lungs. Some, perhaps the majority of clinicians, believe that reinfection tuberculosis is also exogenous and breathed in with the air. The minority of clinicians and nearly all pathologists believe that reinfection tuberculosis is endogenous and reaches the lungs from residual caseous lymph nodes left by the previous primary.[11] I am among the minority of clinicians who believe in endogenous reinfection.

This problem is not entirely academic, since the success of BCG vaccination in preventing reinfection tuberculosis, is dependent in a large measure on which theory is correct. If the exogenous theory is correct, then BCG vaccination can give no better protection than a spontaneous subclinical infection, which results in a positive skin test. If most clinical tuberculosis is endogenous reinfection from caseous lymph nodes left by the primary, then BCG may produce sufficient immunity to prevent completely the infection of the lymph nodes when fully virulent bacilli are subsequently breathed into the lungs. We favor BCG inoculation for medical students, nurses, and hospital attendants but not for the general population in the country.

Tuberculosis is characteristically a relapsing disease. This is not difficult to understand when we realize that viable bacilli may remain dormant for years in relatively insignificant lesions but will become active again when the physiological balance is upset by (1) unusual physical exercise, (2) poor diet, (3) intercurrent infections, or (4) psychic strains of various types. The recent at-

tempts of the thoracic surgeons to cure active, moderately advanced tuberculosis by excising the lobe or lobes which contain the major foci were in most instances disastrous because the small, fresh, but apparently harmless lesions in the other lobes became active and spread throughout the lungs.

Mechanical factors play a large part in the course of tuberculosis. A small lesion in the lungs which becomes caseous and ruptures into a bronchus is rarely serious. A lesion of the same size rupturing into a pulmonary vein results in miliary tuberculosis or one in the brain causes meningitis and miliary tuberculosis. A moderate sized or large lesion in the lung may become caseous but be surrounded by a dense fibrous envelope which prevents the escape of tubercle bacilli and remains a relatively benign tuberculoma. Another caseous lesion of the same size empties its contents into a bronchus and becomes a cavity. The inner wall of the cavity then becomes an ideal place for the multiplication of enormous numbers of bacilli. There is an adequate supply of free oxygen from the bronchus, unlimited food from the serum tissue juices which drain into the cavity and no accumulated waste products to slow multiplication of the bacilli since their products are being continually expectorated in the sputum. The spread of the disease to other parts of the same lobe and to other lobes is most often by mechanical aspiration. The treatment directed toward the closure of cavities is also mechanical. The granulation tissue in the wall of the cavity becomes fibrous tissue which contracts until the cavity is closed unless the process is prevented by other mechanical factors. Rest in bed allows the diaphragm to rise, reduces the pulmonary volume, relaxes the lung and favors cavity closure. Crushing the phrenic nerve, pneumothorax and thoracoplasty are all mechanical processes which relax the lung all favor the fibrous tissue which is trying to close the cavity. Under other conditions scar tissue becomes a liability rather than an asset. Multiple small areas of disease, which caseate but do not excavate, stimulate the formation of fibrous tissue which in contracting may rupture alveoli and destroy the function of the healthy lung.

Although hemorrhage occurs in one-third of all patients with pulmonary tuberculosis, it should be regarded as a mechanical accident. Usually blood vessels are sclerosed by the tuberculous disease before they are eroded. Occasionally the ulcerative process cuts a vessel before it is sclerosed and hemorrhage occurs. If a large pulmonary artery is eroded, the patient dies within a few minutes of an exsanguinating hemorrhage. Fortunately, this is extremely rare. The chief danger of pulmonary hemorrhage is not the loss of blood but the mechanical spread of the disease to other lobes during the hemorrhage.

Pleural, pericardial and peritoneal effusions result from a combination of mechanical and immunological factors. A small lesion ruptures through to a serous surface and an effusion results if the patient has a sufficiently high degree of sensitivity to tuberculin. There is, however, a partial desensitization following the formation of fluid so the tuberculin skin test may be temporarily depressed but returns to or near its former level after the absorption of the fluid.

Streptomycin and PAS (para-amino-salicylic acid) are now accepted as useful agents in the treatment of certain types of tuberculosis. The German drug, TB 1, is much more toxic than streptomycin and PAS and should be used cautiously and only in cases with organisms which are resistant to the other agents. Neomycin is about as effective as streptomycin and works on organisms resistant to streptomycin, but unfortunately produces damage to the kidneys. Viomycin has been used on only a few streptomycin resistant cases. The results were encouraging but there was in some instances a reduction in the calcium and potassium of the blood with the development of tetany.

Streptomycin is definitely superior to PAS. The advantages of oral administration of PAS is almost counterbalanced by the difficulty which many patients have in retaining the drug without digestive disturbances. Tubercle bacilli become resistant to both drugs in a period of twenty to 120 days. The simultaneous administration of 1 gram daily of streptomycin and 8 to 12 grams of PAS about doubles the period of effective treatment before resistant forms appear. Streptomycin has proven most effective in the treatment of tuberculous laryngitis, tracheitis, bronchial tuberculosis, intestinal tuberculosis, and multiple sinuses in the subcutaneous tissue. Acute tuberculous pneumonia and recent bronchogenic spreads often respond in a dramatic fashion. Temporary dramatic improvement in miliary tuberculosis is seen often but the relapse rate is high leaving a respectable residue of 30 to 40 per cent which have apparently recovered. In such desperate cases the dose of

streptomycin is high—2 to 3 grams daily—and vertigo and partial deafness frequently results. Intrathecal streptomycin in 100 microgram doses is used in tuberculous meningitis—daily at first and then at longer intervals as the cells in the spinal fluid decrease.

Streptomycin and PAS are of very little value in the ordinary fibrocaseous type of pulmonary tuberculosis. Patients with cavities, particularly, get little benefit from the drugs because the organism rapidly acquires resistance in a few weeks. In general, streptomycin and PAS should be regarded as a supplement to and not a substitute for the standard methods of treatment. They should never be given as the ultimate and definitive treatment but only as a part of a planned course of treatment which usually includes sanatorium residence or some form of surgery. They should not be given to ambulatory patients or patients staying in their own homes except under most unusual conditions.

ACTH produces dramatic but apparently only temporary improvement in patients with tuberculosis.[13] Within two or three days the temperature is normal, the tuberculin test becomes negative and laryngeal lesions show evidence of healing. But when the drug is discontinued the laryngeal lesions relapse, the fever becomes higher than before treatment and the pulmonary lesions may spread. The combination of ACTH and streptomycin is now being investigated. It is probable that ACTH will be found to be useful when used in the proper dose and in the proper combination with other agents.

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THE PRIVILEGED FEW

The lie persists and millions of people still believe that capitalists are a privileged few. What makes this lie especially dangerous is that the misguided millions who have accepted it so readily as a fact, are by no means willing to accept it as an unalterable economic condition. Many of them desire actively to do something about it.

They argue, truthfully, that industrial wealth stems initially from the God-given natural resources with which our nation has been so richly endowed; and they insist, quite plausibly, that the basic industries which transform those precious raw materials into useful end products, should belong to the people . . . not just to the privileged few!

I would go even further. I believe that *all* enterprise should belong directly to the people, and I hope that the day will come when every American family will purchase a share of American industry, however small or large that share may be.

That, to me, is true public ownership, and I favor it just as ardently as I oppose Government ownership. Let no one tell you that the two are the same. They are as far apart as the poles.

Today, American enterprise does belong to the people—to the people who have built it with their ingenuity and maintained it with their savings. I know of no other nation in the world where such vast industrial resources as ours are owned and controlled so extensively, and so directly, by the public. I do know of other nations, however, where the Government has seized the industries created by its people, and placed them under control of politicians and bureaucrats.

That, to me, is the antithesis of real public ownership. It is *truly* control by the privileged few!—Reprinted from March, 1951, issue of *The Exchange*, publication of New York Stock Exchange.

PROBLEMS OF RURAL MEDICAL CARE

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RECENT dramatic advances in the prevention, diagnosis, and treatment of disease, coupled with more accurate analyses of these advances by the lay press, have served to stimulate and excite the imagination of the people of our country in matters of health. An additional important contemporary influence has been the development of a social philosophy which argues, among other things, that first-class medical care should be available to all citizens under all circumstances. It seems clear that today most people, with rare and unfortunate exceptions, fully accept the principle that the availability of health service is a necessity, not a luxury. This expansion of interest in health services has stimulated the thinking of persons of all groups and in all geographical areas, and this applies particularly to rural and farm groups.

The past twenty years has seen the intensive development of specialization in medicine and in a large measure at the expense of general or family practice. It is not proposed here to argue the merits of specialization except to state that we must somehow get back into our medical thinking the point that it is just as important to have skilled family practitioners who can evaluate the total patient in his environment as it is to have highly skilled technicians who should in effect be only technical consultants. In other words, it is perhaps just as important that the total picture of the physical and emotional needs of the patient be studied through the low-power, wide-angle lens of the family practitioner as it is that certain parts of this patient be studied through the very circumscribed and highly magnified field of the oil immersion lens of the specialist. Suffice it to say, however, that the specialist is almost always attracted to the larger urban areas where are logically located the great medical centers, or at least substantial technical facilities, and other specialists. The rural practitioner is perforce the family or general practitioner. Any pattern which directly or indirectly reduces the production of men interested in general practice will inevitably reduce the flow of practitioners to rural areas. This is an extremely important consideration because well over 40 per cent of our citizens are designated as rural citizens and a system of medical care which is not designed to provide them equally adequate service is in effect a good system of care for little more than half the citizens of our country. The rural family should be entitled to just as good medical care as their urban neighbors. Techniques to provide such care must be continually explored and tested.

Before exploring possible ways of attacking this problem, it is important to evaluate the thinking of people of the rural areas themselves. We in the medical profession, be it in the medical schools or in practice, have fallen down badly in attempting to explain to the people some of the problems involved in providing good medical service and, perhaps more importantly, as regards rural practice, the meaning of good medical service in 1950 and the intelligent use of it.

Fifty years ago when rural roads were mainly mud roads and when the horse and buggy was the main means of transportation, twelve or fifteen miles represented a separation of an hour or more in time. This meant, for example, in a certain county the desirability of a relatively large number of appropriately located physicians. Today that same fifteen miles on all-weather roads with an automobile represents at most twenty or thirty minutes by car. That is to say, fewer physicians are today needed to handle any given geographical rural area. We must explain to the consumers of rural medical care that just because six particular towns in their county had doctors fifty years ago by no means suggests that that same number is needed today. They must be encouraged to think regionally, even in small areas, such as a part of a county. It is true that many citizens of small towns of one thousand people or less who are without physicians and who feel they are remote from medical care are in fact considerably closer to the office of a doctor or a hospital in terms of

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time than many inhabitants of the large cities of this country. Some reduction in the total number of physicians in rural areas in most states of this country over a forty-year period was to be expected and is quite logical.

The rural citizen too often regards his local physician of 1950, from the scientific point of view, as he did the family doctor of fifty years ago. This, in effect, leads to two things:

1. He will go to his local physician to have a cut bandaged or to get his throat swabbed but for anything more significant will go directly to the larger city. This, in effect, makes the local family practitioner nothing more than a first-aid man, and it is to be hoped that we are not today graduating from medical schools men who are content to be first echelon maintenance men.

2. Furthermore, the young physician settling in a small community by himself is too often driven away by continuing unreasonable demands on his time and energy so that he finds he is working twenty-four hours a day, seven days a week.

The young men and women who leave country practice for such reasons do it justifiably, and communities who do not learn how to utilize their medical service properly will not long keep it, or if they are able to keep it, it will be of an increasingly lower effectiveness. However, as one talks to residents of rural areas and representatives of farm groups, one finds in general that no one has ever tried to explain these relatively simple facts to them and, further, that when they are explained, their basic logic is accepted immediately. This is further proof of the inadequacy of positive lay education on the part of the medical profession.

However, it should not be inferred that we have resolved all of the problems of rural medical care. Such problems exist and they are real and require positive, progressive, and imaginative efforts for their solution. These efforts must emphasize co-operation because of the justifiable feeling that the challenge of the last half of the twentieth century will be as much integrating what we now have in all fields as it will be the further expansion of these fields. Integrated and co-operative effort is economical, not only in dollars and cents but also in time, and is certainly effective. Certain factors loom large in any consideration of rural medical practice.

The lack of tools to practice modern medicine, i.e., hospital and equipment, has been one of the major items influencing young physicians against entering country practice. This is entirely understandable. We train our young men and women in modern hospitals with modern equipment and paint the picture of more and better techniques to come. Is it any wonder that they are then reluctant to go to areas where by virtue of the lack of facilities they are only capable of functioning at 50 per cent of capacity? Probably the greatest single influence designed to correct this deficiency has been the passage and implementation of the Federal Hospital Construction Act (Hill-Burton bill). All over this country, on a decentralized basis, modern well-equipped medical workshops are springing up. This enlightened piece of federal legislation is an excellent example of how government can work with individual communities without compromising the integrity or depressing the initiative of the community. It is also proper and fitting that a higher percentage of these federal funds have been allocated to the lower income states because it is just those states where such facilities are most needed.

However, the original Hill-Burton concept did not go far enough. The average physician will spend much more time working in and out of his office than in and out of a hospital. Therefore, the existence of a modern well-equipped office is also a *sine qua non* to first-rate medical service. The young physician of today on the completion of his internship or a period of residency training is in a much different position than his predecessor of fifty years ago. He has had a longer educational experience and is therefore, older and his expense has been greater. Capital equipment necessary to start practice at a high level is infinitely greater today and, finally, society has begun to recognize a basic biological fact, leading to earlier marriage.

What, then, is the picture of a high percentage of our young physicians desirous of entering practice, and just having completed their education? They are frequently in debt, in their late twenties, often married, with or without children, and facing the prospect of compounding their debts in order to equip themselves to carry out modern practice. They further must consider the acquisition of office space with no guarantee but only the prospect of an income to compensate for these factors. On the other hand, they see in the larger urban areas opportunities to enter practice

as associates or partners with already established doctors, with guaranteed income initially and no capital outlay. In effect we then have the situation of the young physician desirous perhaps of living and practicing in a small community but with certain serious problems, mainly financial, to be resolved at the same time that we find many hundreds of communities in which the income level is relatively high and who are anxious to do something in order to attract this physician.

The solution to this dilemna, which is working well in Kansas and other states in the nation, depends upon community initiative, which in turn depends upon medical stimulation and direction. Any town can build and equip a modern medical office or community clinic for between twenty and thirty thousand dollars. This facility is the magnet which draws the young doctor to the town and also guarantees that their doctor can operate at a high degree of efficiency, which is, of course, to the great benefit of the citizens. The money may be raised by bond issue, by private subscription, or by tax levy. Amortization agreements can be made with the young physician so that he may begin purchasing first the equipment and later, if it is mutually agreeable, the building itself. This community clinic may house one or more doctors, possibly a dentist, and would have laboratories, diagnostic x-ray facilities, and the like. In certain instances it would be highly desirable if the county health officer as well as the county health nurse or nurses had their offices in the same facility, in which event one could begin to really speak of a Community Health Center. In certain areas of the country where distances are very great and population sparse, a few hospital-type beds might well be built along with the clinic in order to handle emergency and obstetric cases. One envisages, therefore, at the front line the community clinic or health center backed up by the small rural hospital, which in turn bears a relationship to the medical center of the large city. We hear a great deal these days of "private enterprise" and "local and individual responsibility." Surely the community clinic concept represents local responsibility and enterprise in their purest forms and from such a concept both the consumer and producer of medical care are coequal beneficiaries.

One of the frequently repeated objections of the young physician to remote rural medical practice is the feeling on his part that he will become "medically isolated." We hope that our graduating doctors have a sense of pride in their professional knowledge and ability and a sense of obligation to the maintenance of this ability. To mitigate against such feelings of isolation there must be developed on a broad, realistic and effective basis postgraduate programs, tailor-made not for some theoretical ideal but for realities. Such programs must include:

1. The so-called refresher-type courses usually held at a medical school or medical center, lasting from three days to a week, well prepared and well integrated.

2. Circuit-type courses in which medium-sized communities strategically located throughout a given geographical area are chosen as centers. Teams of physicians may then, monthly or oftener, go out on this circuit with up-to-the-minute prepared discussions of practical every-day therapeutic and diagnostic problems. Experience has shown that this method of carrying education to the busy practitioner is very effective, not only in terms of transferring practical information but also in academically stimulating him at frequent intervals.

3. Opportunities must be made particularly for men in general practice to return to the medical school or medical center at intervals of several years and for periods of time ranging from one to twelve months. This educational experience, which might be called "in-residence" as differentiated from "residencies" for specialities, should provide a minimum of didactic training, and a maximum of "laying-on of the hands" experience. Such opportunities should be available in all fields of medicine.

4. Residency training programs in the various medical specialities should be continued and strengthened, not quantitatively but qualitatively. Furthermore, the man who has had a general practice experience should certainly have as great an opportunity to enter such residency programs as the man who has just completed an internship.

If the above-mentioned techniques are carried out effectively, certainly the medical schools will be able to indicate to their graduating students that no matter where they practice they will not be far distant from the stimulating influence of continuation education.

One problem that remains as yet unanswered is

that of the quantity of production of doctors, nurses, and technicians of all types. It is clear that if we are underproducing the medical personnel, no technique, however attractive, will get enough people to all of the right places. On the other hand, it would be an equally serious and wasteful mistake to supersaturate this country with an excess. The answer to the question of shortage or excess is not clear to the author. Perhaps the answer lies approximately in the statement that there is now an over-all numerical shortage which, however, may soon be taken care of by the expansion of exisiting medical schools. In any event, a more precise answer may be available after the completion of certain major surveys now under way, particularly one on the problems of medical education being carried out jointly by the Association of American Medical Colleges and the American Medical Association and the broad-gauge survey of the Brookings Institute.

It should be noted that some of the techniques described above are mainly possible only in an area of relatively high per-capita income. In such states, individual initiative and local enterprise are capable of bearing most of the load. In those areas of our country where per-capita income is below standard, it seems clear that government, be it local or federal, will have to take larger and more positive steps in both the provision of adequate facilities and, more particularly, in the possible subsidy of the health personnel necessary to operate these facilities. No physician who subscribes both literally and morally to the Hipprocratic Oath and the American Constitution can deny the obligation of providing such fundamentals as adequate educational opportunities and first-class medical care to all people regardless of race, color, creed, or income status. It is high time for local and federal government as well as the members of the health professions to sit down and work out some of these problems on the principle that certain basic needs must be filled with the government providing aid only when local and individual responsibility cannot carry the full load.

There are today many young physicians in training who dislike the pressures and tensions of urban living. They would like to raise their children and cast their lot in smaller, more rural communities. Certain techniques to encourage them in their plans have been tried and found useful in various parts of the country. They require for their general implementation an understanding of the realities of modern medical practice on the part of both medical schools and the consuming medical people. They provide a great challenge to various segments of the health professions to demonstrate imaginative, thoughtful, and progressive medical statesmanship and, most of all, they provide both the producer and consumer of medical care with those conditions necessary for happy professional and social living.

PROGNOSTIC FACTORS IN COLONIC MALIGNANCY

(Continued from Page 427)

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RHEUMATIC PNEUMONIA

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BECAUSE of the relative rarity of rheumatic heart disease in children terminating with a fulminating pneumonia, this case is reported in detail. Though existence of a specific rheumatic pulmonary lesion has been denied,[5] a characteristic pathologic picture which occurs only with rheumatic fever has been recognized.

The exact etiology of this pneumonitis is not known. It has been shown[2] to parallel the pulmonary histopathology seen in experimental and sulfonamide anaphylactic pneumonitis. Pathologically there have been described:[3-6]

1. Fibrinous exudates in the alveoli, which are sometimes transformed into hyaline pseudomembranes.
2. Necrosis of the alveolar walls.
3. Arteriolitis, which resembles that seen in periarteritis nodosa.
4. Focal inflammatory infiltrates, which are chiefly mononuclear.
5. Granulomas, or Masson bodies.

Clinically, two syndromes have occurred, fleeting, reversible pneumonia, without respiratory distress,[1-5] and suddenly developing, fulminating pneumonia, with severe dyspnea and cyanosis.[4-6] I have been able to collect eight cases of this severe rheumatic pneumonia from the literature (Table I). Case 4 is that of a three-year-old white girl who, after five attacks of febrile arthritis in two months, developed sudden dyspnea and a pneumonia.[5]

Case 7 was a five-year-old white boy who became anorexic and feverish and then developed pancarditis and fatal pneumonia and expired in ten days.[6] All of these reported cases were ultimately fatal, though Case 1 had three recurrences before death.

Radiologically the findings more closely resemble those of cardiac failure than those of pneumonia.[1-5]

Report of Case

Case 9.—S. D. was a six-year, five-month-old white girl who was seen because of a pruritic rash on the body which developed about April 8, 1950, and changed in character daily. She had never had any previous illness. There was no recent history of immunization or other injections. The father and mother were well. Six siblings were in good health. There was no family history of allergy or any chronic illness.

Examination disclosed a fairly well-nourished and well-developed child. There were large urticarial lesions generalized over the skin. There was no general glandular enlargement. Tonsils were red. Heart and lungs were normal. Liver, spleen, and kidneys were not palpable. Extremities were normal. She was given 400,000 units of procaine penicillin, 0.2 c.c. of 1:1000 adrenalin, and put on Elixir Benadryl, 2 drams three times daily.

She was again seen on April 18, when most of the urticaria had subsided. On May 9, she was seen with a temperature of 102° and acute tonsillitis. On May 11, she had developed a generalized rash. Examination disclosed an acutely ill, dyspneic, pale child who had large, angular, erythematous lesions of the body. There was no general glandular enlargement. Head and neck were normal. Eyes and ears normal. Tonsils were prominent. Heart rate was 160 with a gallop rhythm at the apex. No murmurs were heard. Lungs were clear. Liver, spleen and kidneys were not palpable. Genitalia were normal. Extremities normal. The impression at that time was rheumatic fever with erythema marginatum.

Accessory Clinical Findings.—Temperature was 105.° Electrocardiogram showed P-R interval 0.16; Q-T 0.32. P-1 was flat; QRS 1-3 low amplitude; T 2-3 depressed. Urine was normal. Hemoglobin 67 per cent; white blood cells 19,000; polymorphonuclear cells 76 per cent; lymphocytes 32 per cent. X-ray showed a dilated heart with possibly some pericardial effusion. She was started on penicillin and aureomycin.

On May 15 aspirin was begun in dosage of one grain per pound. Vitamin K, and ascorbic acid were also given.

On May 16 a systolic murmur was audible at the apex. The temperature varied from 99° to 103.6° By May 19 the heart rate had slowed to 100°, and she was not dyspneic. Bone marrow aspiration at this time showed only a granular cell hyperplasia. No L.E. cells were seen. Blood culture was negative. Tuberculin test was negative. On May 22 a presystolic murmur was heard at the apex. About May 22 she was taken out of oxygen, and from then on, even though she had some fever, she was able to lie flat in bed and was eating fairly well. On May 24 a diastolic murmur was first heard. She was given four small blood transfusions and seemed much improved. Sedimentation rate on May 26 was 45 mm. per hour.

On the morning of May 31, 1950, the ears and throat were normal, the heart tones were soft, and the systolic

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TABLE I. SUMMARIZED HISTORY OF CASES OF RHEUMATIC PNEUMONIA
Modified from Seldin, Kaplan, and Bunting[5], with additions.*

Case No.	Age	Sex	Previous Attacks of Active R.F.	Onset of R.F. to Onset of Pneumonia	Rapidity of Onset	Chill	Hacking Cough	Dyspnea	Pleurisy	Course	Result
1.	29	F	3	3½ months	++++	0	+	++++	+	15d	D
2.	16	M	2	16 days	++++	0	+	++++	+	12d	D
3.	13	F	1	4 days	++	0	+	+++	0	5d	D
4.	3	F	0	2 months	++++	0	+	++++	0	31d	D
5.	22	F	1	1 month	+++	+	+	+++++	+	40d	D
6.	16	M	1	10 weeks	+++	0	+	+++	0	12d	D
1.	23	F	1	8 months	+++	0	+	+++	+	8d	L
1.	25	F	2	12 months	+++	0	+	++++	0	7d	L
7.	5	M	0	4 days	++++	0	+	++++	0	10d	D
8.	19	F	1	1 month	+	++	+	++++	0	2d	D
9.	6	F	0	20 days	++++	0	++++	++++	?	4hr	D

*Cases 1 through 6—Seldin, Kaplan, and Bunting[5]
Case 7— Smith[6]
Case 8— Nittono and Hoshiyama[4]
Case 9— Kling and Tudor

and diastolic murmurs were decreased in intensity. The liver, spleen, and kidneys were not palpable. A few râles were heard in the hilar areas posteriorly. Temperature was 100.4 rectally. At 7:30 p.m. she was coughing continually and was cyanotic. At this time there was considerable consolidation of the right upper lobe with bronchophony and crepitant râles. She expired at 10:45 p.m.

Pathological Report.—The body was that of a somewhat undernourished but well-developed female child six years of age. There was no jaundice, petechiae, or superficial adenopathy. The chest and abdomen were opened in the usual manner. The entire bowel was a light gray color, only slightly distended, and there was no evidence of peritonitis. The liver weighed 1,050 grams and showed marked congestion about the central veins. The gall bladder was normal and the biliary ducts were patent. The pancreas appeared normal. The spleen weighed 85 grams and yielded abundant scrapings to the knife blade. Its markings appeared normal. Both adrenals appeared normal and showed no evidence of hemorrhage. The left kidney weighed 75 grams and the right kidney 80 grams. Their capsules stripped readily, leaving a smooth underlying surface. On section there was a well-demarcated cortex and medulla. The calices, pelves, and ureters appeared normal. The mucosa of the urinary bladder was normal in appearance. The uterus and uterine tubes were extremely small. The ovaries appeared normal.

Posteriorly, the right pleural cavity was obliterated by fibrinous adhesions and contained 40 c.c. of straw-colored fluid. The left pleural cavity contained adhesions in the apical region and 20 to 30 c.c. of straw-colored fluid was present. The right lung weighed 625 grams. The upper lobe was completely consolidated, and the middle and lower lobes, except for small areas at the respective inferior borders, were also completely consolidated. The lung appeared rubbery to the touch and on section appeared dark purple. The left lung weiged 440 grams and showed a patchy consolidation throughout both lobes. The pericardial cavity contained approximately 30 c.c. of straw-colored fluid, and fibrinous adhesions were present between the visceral and parietal pericardium over the apex and left ventricle. When the adhesions were separated, a typical shaggy "bread and butter" appearance resulted. The heart weighed 240 grams. The right auricle and ventricle were markedly dilated. The musculature of the left ventricle was somewhat hypertrophied. The mitral valve was plastered to the endocardium and superficially exhibited a number of small, hard ridges, the largest of which measured about 2 mm. in diameter. The valve appeared reddened and the chorda tendioneae were somewhat shortened. The other valves appeared normal. The thoracic and abdominal aorta was smooth and flexible.

Histologic Examination.—This revealed numerous Aschoff nodules in the interstitial myocardial tissue. There were also scattered foci of polymorphonuclear cells throughout the myocardium. The pericardium was diffusely infiltrated with inflammatory cells and the mesothelium was lacking. Sections of the mitral valve showed a diffuse round cell and polymorphonuclear cell infiltration. The lungs showed an intense exudative inflammatory reaction. Most of the alveoli were completely engorged with red blood cells and alveolar phagocytes, while a few were completely filled with polymorphonuclear cells. Many of the alveoli were filled with a fibrinos exudate which was often organized into fibrin plugs, and in some, hyaline pseudo-membranes were visible. The interstitial tissues contained infiltrates of mononuclear cells. A rather generalized arteriolitis was present. Occasional granulomatous foci were seen in the alveolar ducts. The interalveolar capillaries were intensely congested and the pleurae were

(Continued on Page 441)

OPERATING ROOM CHOLANGIOGRAMS

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FOR many years surgeons have been plagued by postoperative biliary obstruction, due for the most part to stones overlooked and less often to biliary duct injury sustained in the course of operation. It has been almost everyone's embarrassing experience to note the occurrence of biliary colic and the development of jaundice after having but recently explored and presumably emptied the common duct. It has also been the misfortune of many of us to have removed the gall bladder and to have had the patient subsequently develop jaundice after having palpated and examined the common duct and satisfied ourselves that it contained no stone. Heretofore, the means at our disposal for examining the common duct before and after operation has entailed opening and exploring it mechanically with sounds, forceps and scoops of various sizes. This has been not an altogether satisfactory procedure. Stones have been missed, the ducts have been injured and the base has been laid for future stricture. Moreover, such exploration has been attended by a definitely increased risk.

Lahey, in a series of 2,000 personal cases, reports a mortality for cholecystectomy of 4 per cent. When the common duct is explored, this mortality increases to 13 per cent. Cole, reviewing many series of cases reported by various surgeons, reports an over-all mortality for cholecystectomy of 6.5 per cent and for common duct exploration of 10 per cent. It is obvious that such a mortality is too great to justify choledochotomy as a routine procedure. For this reason as well as the unfortunate complications aforementioned, an effort has been made to develop a method whereby the integrity of the common duct could be determined without increasing the mortality.

Examination of the biliary system by x-ray and radio-opaque materials is not new. As a postoperative procedure it has been employed for many years with variable degrees of satisfaction. In 1932, Mirizzi proposed that a cholangiogram be made on the operating table before closure of the abdominal wound. In 1936, Best and Hickem added their support to the idea. Following this with some slight modification, the results of such a procedure have been reported by a number of surgeons. Broadly stated, the indications for operating room cholangiograms exist if there is reason to suspect stones within the biliary tract or any distortion or interruption of its continuity. Inasmuch as every patient having stones in the gall bladder is a potential carrier of stones within the common duct, this statement really implies that every patient having an operation upon the biliary tract should be examined by a cholangiogram made on the operating table.

The cholangiogram, to be adequate, involves the co-operation of surgeon, anesthetist and roentgenologist. Each must realize what is to be attempted and must contribute intelligently his part in the procedure. The surgeon must so plan his approach that without loss of time he may provide a field easy of access for the roentgenologist after having given the anesthetist sufficient warning and time for preparation of the patient. The technique of performance is not difficult or involved but is exacting in its details. The patient is placed on the operating table with a tunnel sufficiently deep to hold a cassette beneath the region of the gall bladder. A preliminary film is exposed to check the location and determine the necessary time of exposure. When this has been satisfactorily determined, the abdomen is opened in the usual manner. It is the practice of some operators to expose the common duct at once and open it sufficiently wide to permit the insertion of a T-tube, whereby the cholangiogram is made. As this procedure at once accepts the increased risk of choledochotomy, it does not appear to be justified as a routine procedure. Furthermore, I do not believe that it is necssary in order to obtain a satisfactory cholangiogram. Several have attempted to avoid opening the common duct by injecting the radiopaque substance through a needle. In my hands this has proved most unsatisfactory. The needle, if sufficiently large to complete the procedure satisfactorily, often injures the common duct and permits leakage after withdrawal. This not only at times obscures the cholangiogram but may invite complication from escape of bile. If a fine needle is used, it is difficult

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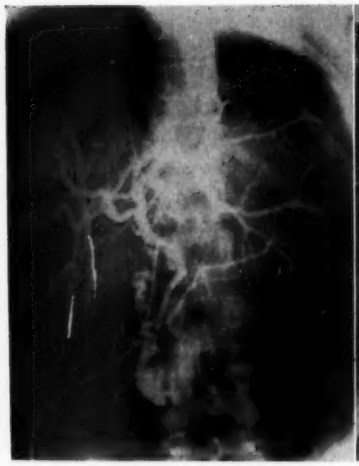

Fig. 1. Normal cholangiogram. Normal biliary tree and normal pancreatic duct.

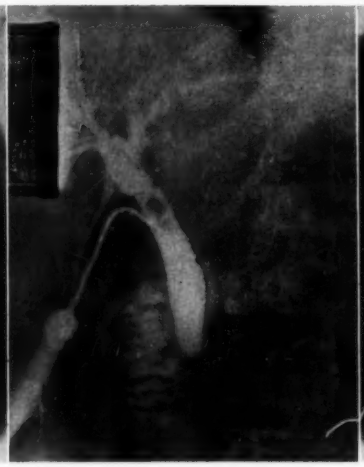

Fig. 2. Abnormal cholangiogram. Dilated common duct and multiple retained stones.

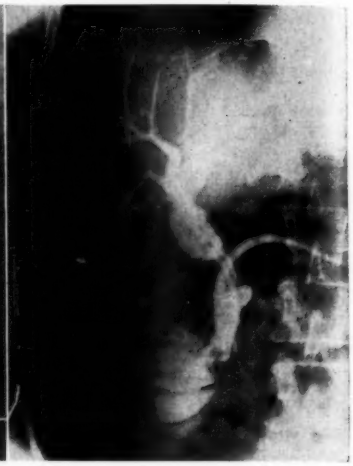

Fig. 3. Abnormal cholangiogram. Dilated common duct with stones in ampulla. Dilated pancreatic duct.

to aspirate and examine the bile and also difficult to determine the intraductal pressure during injection.

It is our practice first to remove the gall bladder and, after carefully isolating the cystic duct, to cut the duct, leaving it about 1 inch in length. A small probe is then introduced to determine its patency. At times a small retained cystic duct stone can be identified. At other times it will be found that the Heisterian folds are difficult to pass and constitute an actual obstruction to injection. Once the cystic duct has been sufficiently opened, a soft silver cannula 1 or 2 millimeters in diameter is inserted and tied firmly with catgut. The cannula must be inserted carefully because of the danger of perforation of the thin cystic duct or common duct wall. It is safer and quite as satisfactory to insert the cannula only into the cystic duct and not allow it to enter the common duct itself.

The earlier attempts at cholangiography were made with lipiodol, but because of its viscosity and tendency to entrapment of air bubbles, this material was discarded. Thorotrast was also employed at one time, but it was found that leakage into the peritoneal cavity of even small amounts results in a chemical peritonitis of serious nature. The medium commonly employed at present is one of the iodine compounds used in intravenous urograms, such as diodrast or iopax. The material is aqueous, non-irritating and sufficiently fluid to enter the small biliary radicles without excessive pressure. In the normal biliary tree the injected substance, diodrast or iopax, may be used in full strength. If, however, the duct is enlarged, the material should be diluted one-half so that the density of the material does not obscure the defect caused by a small stone.

As before noted, a small cannula is tied in the long cystic duct and attached to this is a 20 c.c. Luer syringe with rubber tubing and connector 12 inches in length. The syringe is filled with normal saline, and the system is cleared of air bubbles and then connected. Twenty to 30 c.c. of saline is then used to irrigate the biliary tract. The syringe is then filled with 20 c.c. of diodrast, which is injected slowly. If the injection is made too rapidly and the common duct is distended too suddenly, sphincter spasm will result and frequently the patient will be so disturbed as to require deeper anesthesia. If the patient is under pentothal anesthesia, too rapid injection may cause laryngospasm. Toward the end of the injection, all metallic substances are removed from the field, which is then covered with a protecting drape, and the x-ray apparatus is wheeled in position. During the period of injection, the anesthetist has by means of oxygen and forced respiration induced a state of apnea. When advised by the surgeon that injection is complete, the anesthetist stops the respiratory motion. The signal is given to the roentgenologist who immediately exposes the film for a period ranging from ½ to 1 second. In the average case the readings are as follows:

80 kv, 40 ma, 30 inches distance with cone attached, .7 second time. The plate is then removed from the tunnel and a second plate inserted. Immediately a second exposure is made in the same manner as the first. This permits further diffusion of the dye and reduces the percentage of error due to motion. The films are developed immediately and examined in the operating room. In the event that they are not sufficiently clear or that the proper field has not been included, the procedure is repeated. If the cholangiogram is normal, the cystic duct is tied and the excessive portion is removed together with the cannula. If, on the other hand, the cholangiogram presents evidence of abnormality, the cannula is removed and the duct tied in the same manner, and the common duct is then exposed for exploration. At the end of exploration and the removal of any obstructing material, a T-tube is placed in the common duct and sutured in place with 5-0 chromic catgut. The tube is then connected with a syringe filled with saline and again the biliary tract is irrigated. Following thorough irrigation, the biliary tract is again injected with diodrast and x-ray films are made as previously. When the films show no further evidence of retained stone and when the dye passes readily and can be demonstrated in the duodenum, the wound is closed and the operation considered complete.

On occasion, particularly after trauma to the duct in the removal of a stone, the final cholangiogram made through the T-tube will show evidence of sphincter spasm which may temporarily obstruct the flow into the duodenum. If this occurs on the preliminary cholangiogram or on the final film, amyl nitrite is administered by inhalation. This relaxes the spasm and permits the diodrast to pass freely into the duodenum. In certain cases it may be desirable to demonstrate the pancreatic duct and its relation to the common duct. If this does not occur in the usual course of injection, it may be obtained by following the procedure of Doubilet.

Summary

In operations upon the biliary tract it is desirable to know whether or not stones are present in the common duct. An operating room cholangigram provides this information without choledochotomy and without increased risk.

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RHEUMATIC PNEUMONIA

(Continued from Page 438)

infiltrated with inflammatory cells. No bacteria were found on the lung on direct smear. The spleen was markedly congested and showed a definite lymphoid hyperplasia. The kidneys and adrenals appeared normal. The liver showed moderate central lobular congestion.

Cause of Death.—(1) Acute fulminating exudative pneumonia—etiology unknown. (2) Acute rheumatic fever.

Anatomical Diagnosis.—(1) Rheumatic pericarditis, myocarditis, and valvulitis. (2) Pericardial effusion. (3) Acute fulminating exudative pneumonia—etiology unknown (rheumatic ?).

Summary

An acute fulminating lobar pneumonia which occurred twenty days after the onset of rheumatic heart disease in a six-and-a-half-year-old white girl has been reported. It is theorized that this acute fulminating exudative pneumonia was rheumatic in origin.

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PRACTICAL POINTS IN ALLERGY

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THERE are probably no individuals quite so miserable, unhappy and chronically ill as those who suffer from major allergic conditions, and again, there are no patients more grateful when afforded some measure of relief. With diligent study of the problems, and with application of common sense in setting up a plan for treatment and control of troublesome factors, relief from symptoms is an attainable objective.

Regardless of our individual interests in medicine, it would seem that we, as physicians, should recognize an allergic condition and be ready with some basic plan of procedure when such an individual enters our office. Notwithstanding the numerous press releases to the public heralding new "cures" for allergy, there is no short-cut we may take in controlling allergic conditions. It is true that the many new "allergy" drugs materially assist in the symptomatic treatment of such conditions, but this is not enough. We must concern ourselves with measures which strike at the problem from a physiological and immunological point of view.

In our study of patients, we should (1) look for symptoms and history data pointing to a diagnosis of allergy, (2) proceed in an orderly manner with study and investigation, and (3) develop a logical and simplified, yet effective therapeutic plan. With some practice, an interview with an allergy patient need not be lengthy; time thus spent, however, in my opinion, is the most profitable step we may take in our attempt at getting at the underlying causes. The problem can be fairly well crystallized at this point and before the patient is ushered into a testing booth. Physical examination and protein tests, selected with the thought in mind of verifying our clinical opinion, help us to put "teeth" into our diagnosis. Symptoms present the year around set off a chain of thought and action along one line, while the presence of sharply delineated seasonal symptoms only narrows the scope of the problem greatly. Since allergic changes may affect every tissue in the body at some time or another, symptoms may be numerous and variable. In addition to such well-known allergic conditions as hay fever, nasal allergy, bronchial asthma, eczema, urticaria, angioneurotic edema, and drug allergy, we now have allergy under consideration as playing a prominent role in arthritis, periarteritis nodosa, ulcerative colitis, pulmonary tuberculosis, rheumatic fever and headaches.

For the past two years we have been successful in reducing the incidence of the common respiratory infections. Antihistamine drugs administered early often effectively control coryza, sneezing, and edema of the upper respiratory tract mucosa, and may abort the process completely. Additional therapy with bacterial vaccines, dust and mold extracts has been most helpful; patients who, prior to treatment, experienced three to five respiratory infections during winter months have been kept entirely free of the common cold. This experience lends credence to current opinion that respiratory infections are superimposed upon allergic tissues, or that allergy, at a subclinical level, is often present in the cold-susceptible individual.

Reactions to drugs, chemicals and antibiotics are encountered almost daily in our practice. Perhaps we, as physicians, are unwittingly sensitizing a large cross-section of the population. It is not uncommon to treat a scratchy throat with penicillin, only to have our patient hospitalized for a week or so because of a severe reaction to that drug. Almost any of the medications we use in our every day practice are potential sensitizers of the patient. Complications and untoward reactions may cause conditions far more serious than the original ailment under treatment. Oral penicillin preparations commonly cause reactions, while aqueous intramuscular preparations are hardly ever at fault.

We cannot stop with an analysis of the allergy problem alone but must proceed with an evaluation of the total health status of the individual. We are doomed to failure before we start protein desensitization, unless we give proper corrective consideration to such problems as malnutrition, anemia, hypothyroidism, nervousness and frank foci of infection. Just as important as is exposure

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Read before the American Academy of General Practice of Wayne County, First Postgraduate Lecture, October 27, 1949.

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to antigenic substances are the conditions that lead to emotional instability, unhappiness or worry. Observations during the pollen season last year convinced us that patients experienced marked exacerbation of symptoms, independent of the pollen level, when there was a sudden drop in temperature, when the barometer was changing, or when the humidity soared into the nineties. Such conditions, however, are beyond our control.

Changes in environment are most important and should always be considered as a possibility. Are there new rugs, furnishings, pets, insecticides, chemicals, hobbies, clothes, cosmetics, or has a remodeling job been done on the home? Introduction of rock wool insulation into the walls of a cottage, with resultant condensation and mold, caused illness in one of our patients. He could sleep peacefully on his back porch, but experienced severe asthma when in the house more than fifteen minutes. Another patient could sleep at the home of his sister, while thirty minutes in his own home was followed by severe asthma; the problem was one of a moldy basement.

Next to a well-taken history, nothing is more valuable than a thorough examination, which may require assistance from one or several specialists in the various fields of medicine. X-rays must be considered as important in the study of the asthmatic chest, and pathology in the paranasal sinuses should not be overlooked. Serious headaches should be studied by the neurologist. The general practitioner is in an enviable position—it is he who knows the family, the patient and his problems, and it is to him that the patient first turns for help.

Protein tests enjoy entirely too much popularity, in my opinion, as a method of diagnosing an allergic condition. When used as is any laboratory procedure to confirm our clinical suspicions, they may prove quite helpful, but when made the sole basis for our diagnosis, they may be highly misleading. If they confirm our clinical impressions, accept the results; if they do not make sense and do not fit the picture, it is best to toss them aside.

Mass testing with hundreds of substances is unwarranted and is less desirable than selecting a few well-chosen substances which are deemed important from our review of the history of the case. A high percentage of positive tests on a single test subject is most unusual and should warn us that *dermatographia* (irritability of the capillary bed of the skin) and *not allergy* is present. Control tests are always positive when applied to such a skin and should always be applied. Draw your fingernail or a blunt instrument across the skin and you will note the appearance of a red wheal.

Safety is necessary in the testing rooms. We have made it a rule to apply scratch tests initially, especially when testing individuals in whom we suspect a high degree of sensitivity, when testing children, and adults who are in an extremely weakened physical condition. When necessary we retest with intradermals. Block testing is helpful in avoiding the constitutional reactions which are always a possible source of danger. Although tests may be applied by a nurse, or well-trained technician, the physician should make frequent observations during the test period and make all interpretations.

Every allergist has his favorite list of foods that he considers troublesome. Rowe considers food to be the most troublesome and leading causative factor in all forms of allergy. We cannot duplicate his experiences in our large and busy allergy clinic. Allergists, by excluding numerous basic foods from diets, are large contributors to the malnourished condition of many patients. We should think carefully and have a sound basis for our action before we make such limitations in any diet.

This year, as in the past, patients have experienced aggravation of hay fever symptoms when they are partaking abundantly of freshly harvested fruits and vegetables; at other seasons of the year such foods may be eaten with impunity. Uncooked fresh fruits and vegetables are high in antigenic quality. Cooking remedies this condition; it is well known that thorough boiling, or substitution of soy-bean milk, often is helpful in handling the milk-sensitive individual. It is best to serve moderate helpings and to rotate items in the diet.

Thousands of individuals suffer from hay fever. During the past summer pollination was unusually heavy, and sufferers were numerous in the untreated group. We, as physicians, should advise our patients that there is no better or more reliable method than pollen extract therapy. It is true that the ever-growing number of antihistamine drugs are helpful in the control of symptoms but will not furnish adequate protection for the highly sensitive individual. We should remember that as ragweed pollen disappears in late Septem-

ber, our patients may continue to have symptoms. In this group we should suspect dusts, *Hormodendrum* and *Alternaria* of the mold groups as added troublesome factors.

Hay fever is caused by the pollens of trees, grasses, and ragweed; patients sensitive to all may have symptoms from April through September. Such pollens are abundant and depend upon the wind for distribution, while flowers with their gay colors attract bees and insects, which spread the pollen about. Florists and funeral directors, however, may develop a high degree of sensitivity, but for practical purposes we need not consider flowers as creating a major problem in the control of hay fever. "Rose fever" is most often found to be due to tree and grass pollens. Goldenrod may be unjustly accused of causing symptoms which are in reality due to the drab and unnoticed ragweed in the same vicinity. We should know that heavy pollen counts are encountered in the nearby states of Ohio, Indiana and Illinois, and that certain areas in Michigan are extremely low; such localities afford a haven of refuge for our patients.

Pollination charts compiled by Durham and Tufts have been most helpful to allergists. From such charts we learn that trees begin to pollinate in mid-March and April, grasses in May, and ragweed in late July.

Spring Hay Fever

Pollens from practically all trees may cause hay fever. In this area poplar, oak, elm and maple are chief offenders. Symptoms as a rule are usually mild and may easily be controlled with symptomatic measures. There are patients, however, who are extremely sensitized to these pollens; they should receive pollen extract therapy, beginning not later than mid-January.

Early Hay Fever

Grasses pollinate sufficiently to cause symptoms from early May through July. Chief offenders in this area are timothy, June grass, Orchard grass and Red Top; they are all found in the usual lawn grass mixtures for sale at the hardware store. In our treatment mixture we include extracts of the pollens to which our patients show a wheal and pseudopod reaction on skin testing. Such injections should be started not later than mid-March.

Late Hay Fever

Giant ragweed pollination begins about July 20 and becomes clinically important in mid-August. Low ragweed pollination reaches a peak about mid-September. We start patients on mixed ragweed extract not later than mid-May.

We favor the preseasonal treatment plan as mentioned above, and use it in preference to the perennial and co-seasonal. We start with dilute mixtures of extract and gradually increase dosage and strength as treatment progresses, ever on the lookout for overdosage as manifested by minor intolerances or the more serious constitutional reactions. We give pollen extract subcutaneously once a week. We ask our patients to remain in the waiting room for twenty minutes following injections; should an untoward reaction occur, they are then readily available for treatment. Should mild reactions occur, we give one of the antihistamines; should the reaction be more serious, a tourniquet is applied above the site of injection, and epinephrine (3 minims of 1:1000) is injected into the opposite arm.

When patients report for treatment, they are questioned closely regarding possible delayed reactions from the previous injection. When necessary, adjustments of dosage levels are made. Since it is impossible to predict accurately any dosage schedule which will fall within the tolerance level of the patient, and since treatment must be highly individualized, it is unwise and dangerous for doctors not to personally supervise pollen extract therapy.

Perennial Vasomotor Rhinitis

At this particuular season we see many patients with exacerbations of year-round symptoms such as stuffy nose, post-nasal drip, sinusitis, and attacks of sneezing. Such symptoms are due to nasal allergy and are often associated with a high degree of susceptibility to the common cold. Patients in this group are usually found to be sensitive to feathers, dusts, furniture stuffing, lint from carpeting, molds, and fumes from chemicals and insecticides. Prolonged use of nose drops may be an aggravating factor; we do not prescribe them. Metabolic changes in hypothyroidism and pregnancy may aggravate the nasal condition, as will highly seasoned foods, chocolate, eggs, milk, and alcoholic beverages. This group of patients is indeed most difficult to treat, and requires patience, perseverance and resourcefulness on the

part of the patient as well as the doctor. Treatment includes strict allergic cleanliness, hyposensitization therapy with bacterial vaccines, dust and mold extracts. Antihistamines may materially assist in temporary control of symptoms.

Bronchial Asthma

Our basic plan of therapy for the asthmatic patient is five-fold. It calls for: (1) relief of bronchospasm (bronchospasmolytic drugs); (2) evacuation of mucus from the bronchial tree (bronchoscopic suction and lavage, use of iodides followed by postural drainage); (3) treatment of infection (penicillin, streptomycin, aureomycin, chloromycetin); (4) control of allergic factors (hyposensitization with dust and mold extracts, bacterial vaccines, allergic cleanliness, and protective environment); and (5) general supportive measures deemed necessary to correct anoxia, dehydration and malnutrition.

With such a comprehensive treatment plan it is obvious, I believe, why we are unsuccessful in the treatment of bronchial asthma, if we rely solely on one of the newer "miracle drugs" for results.

The Asthmatic Emergency.—The most frequent emergency condition encountered in our clinic is the patient with acute asthma. We have found it necessary to develop a dependable treatment routine adaptable to office practice. Many patients are promptly relieved, and are thus enabled to carry on with out-patient therapy; hospitalization is thus reserved for the desperately ill patient whose asthma may be complicated by cor pulmonale, severe peripheral vasomotor collapse, acute infection, or severe anoxia, dehydration and malnutrition.

Office Emergency Treatment.—

1. Triple intravenous therapy.—Glucose 100 c.c. in 5% concentration, in water; Aminophyllin Gr. 3¾; Sodium iodide 100 c.c. in 10% concentration. Mix together in cylinder and give *slowly* over twenty-minute period.
2. Epinephrine.—Give 2 to 3 minims (1-1000) "H" while the intravenous is running. Give hypodermically.
3. Penicillin.—Give aqueous intramuscular, 300,000 to 400,000 units, if there is a history of recent infection, purulent sputum, fever or leukocytosis. (Repeat 1, 2 and 3 daily for three or four days and then twice weekly.)
4. Search for precipitating factors.—While the patient is resting for twenty to thirty minutes after the above treatment, elicit data for the history. Avoid basing your treatment plan on drugs and medications previously tried and found ineffective. Antihistamines may be quite helpful in treating the asthmatic child but often aggravate asthma in the adult. We do not use antihistamines in the adult asthmatic patient. Iodides are most helpful and are necessary to thin the thick mucus which plugs the bronchial tree. Get rid of this mucus and you are well on your way to therapeutic success.
5. Medications for continuing treatment at home. (a) Bronchospasmolytic drugs (select one): Nethaphyl—one capsule three or four times daily or one capsule at onset of wheezing. Quadronal—one tablet three times daily or one tablet at onset of wheezing. Amesec—one tablet or capsule three or four times daily or one tablet at onset of wheezing. (b) In addition to above start patient on Hydryllin one tablet after each meal and one at bedtime. (c) Start an iodide preparation: Syrup of Calcidrine—one teaspoonful after each meal or Potassium iodide enseals—one after breakfast and supper. (d) Asthma Mixture (HFH Formulary): This medication has proven effective over a period of many years, and is quite helpful by itself or may be used in conjunction with any combination of the medications listed above.

ASTHMA MIXTURE

Tincture belladonna	10.0
Ephedrine sulphate (3%)	30.0
Codeine sulphate	0.6
Chloral hydrate	15.0
Syrup of hydriodic acid q. s. ad	240.0

Sig.: One teaspoonful every four to six hours as necessary for asthma.

Long Range Treatment Program.—After the acute emergency condition has been brought under control, we must next consider, and institute a long range therapeutic program. Suggestions listed below may prove quite helpful.

1. Culture the sputum.

   Lack of response to adequate penicillin therapy may be due to Gram-negative organisms. If so substitute Aureomycin or Chloromycetin for penicillin.

   Chloromycetin—initial dose 1 gram, then ½ gram every six hours for five to seven days.
2. Protein test survey.

   Delay protein testing for several weeks after status asthmaticus has cleared. Use information gained from protein testing, along with facts as elicited in the history, to set up hyposensitization therapy with pollen extracts, dust and mold extracts, and bacterial vaccines.
3. Allergic cleanliness.

   Cover feather pillows with plastic or silk dustproof covers, discard tufted bead spreads, eliminate pets from the living quarters, eliminate the mold problem in the basement, protect the housewife or the working man from dusts insofar as possible (masks, filters for hot air ducts, sub-

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History of Medicine In Minnesota

MEDICINE AND ITS PRACTITIONERS IN OLMSTED COUNTY PRIOR TO 1900

NORA H. GUTHREY
Rochester, Minnesota

(Continued from the April issue.)

Isaac Hall Orcutt (1847-1912), of Dodge County, Minnesota, was a practitioner of medicine in Byron, Olmsted County, from March, 1876, to January, 1883, and from 1893 until his death was well known in other parts of southern Minnesota. He commonly signed his name "I. H. Orcutt" and was known as "Dr. Hall Orcutt." He was a member of a family that for many decades has been established in Dodge and Olmsted Counties.

Born on June 7, 1847, near Westmoreland, Oneida County, New York, Isaac Hall Orcutt was the son of Isaac Orcutt and Julia A. Knapp Orcutt. By a previous marriage, about 1828, Isaac Orcutt had three children, Elizabeth Antoinette, George and Charles. By the second marriage, about 1835, there were eight children: Theodore de Martigne, Cola di Rienzi, Peter Ezra, Sheldon Read (for many years a carpenter in Dodge Center), Edward Henry, Levera Jane, Isaac Hall, and Alfred Stoddard (a Baptist preacher, who died in Luverne, Minnesota, in 1886). With his wife and children Isaac Orcutt in 1848 left New York for Ohio. From Ohio the group emigrated to Iowa in 1851, and from Iowa to Minnesota in 1855, settling on a farm in Milton Township, Dodge County; in 1863 they moved a few miles onto land in Concord Township. They traveled to Minnesota in two wagons drawn by oxen, and forded the Zumbro River at Rochester, when the settlement was represented by one log building, which served as inn, store, living quarters and blacksmith shop.

Isaac Hall Orcutt received his early education at local district schools; in 1866 he enrolled at the Groveland Seminary at Wasioja, and on completion of his course returned home to teach the school of his boyhood in Concord Township. It is said that in 1872 he began the study of medicine, doubtless under a local physician as preceptor, although record of such study does not remain. On March 21, 1876, he was graduated with the degree of doctor of medicine from the Chicago Medical College and in the same month began the practice of medicine in Byron. Dr. S. B. Kendall had been established there many years; Dr. W. H. Willson, of brief residence, came at the same time as Dr. Orcutt. In April, 1879, Dr. Orcutt went to the University of Pennsylvania for a course in natural sciences, and during the latter part of this absence Dr. William M. Dodd, a local boy of Kalmar Township, Olmsted County, a graduate of the Chicago Medical College (in March, 1880), carried his practice for a few months. Dr. Orcutt returned in June, 1880, with his degree of doctor of philosophy and resumed his practice; in March, 1882, he took into partnership Dr. Carlos R. Keyes, a graduate (1881) of the medical department of the University of Vermont, who had arrived in Byron a few weeks earlier. Dr. Orcutt, because of ill health, was then giving up his professional ride

and restricting himself to office practice. In January, 1883, he retired to a farm between Dodge Center and West Concord.

Early in 1884, shortly after the death of his wife, Dr. Orcutt removed to Brookings, Brookings County, Dakota Territory, where he remained until 1893. For about two years a practicing physician (registered in the territory on April 28, 1886), in June, 1885, he was appointed to the faculty of the Dakota Agricultural College, at Brookings, as professor of natural sciences and curator of the college museum; there is record of his many field expeditions to collect botanical and geological specimens for the museum. His duties were comprehensive: He was college physician; from 1887 to 1891 he was professor of zoology, entomology and physiology; from 1888, in addition to his professorship, he was entomologist to the South Dakota Experiment Station at Brookings; from 1891 to late 1892, professor of zoology, geology and physiology. Notices have been observed of his lectures on health to the students, "giving them many valuable prescriptions"; on evolution; on entomology and the destruction of insects. In November, 1892, in the course of a political move within the college, it is said, Dr. Orcutt and five other professors were removed from the faculty, in the face of bitter protest of the entire student body, who sent a written vote of confidence to the deposed professors; many of the indignant students transferred to other colleges.

From early years a staunch Baptist, worker in the Sunday school, lecturer and preacher, Dr. Orcutt was outstandingly a prohibitionist and a scientific investigator of the ill effects of alcohol and tobacco on the human nervous system. For a few months after leaving the Dakota Agricultural College he continued his special studies at Brookings but early in 1893 removed to Owatonna, Steele County, Minnesota. There he brought out, in 1894, addressed to the public, his little book, *Microbes and Men*, the outgrowth of his special work, in the preparation of which he had been assisted by certain members of the faculty and the student body at Brookings, and by the Reverend S. A. McKay, of Owatonna. The frontispiece is a likeness of Dr. Orcutt, shown operating his sphygmograph, an instrument used in his many experiments and tests. In 1896 Dr. Orcutt removed to Northfield, Rice County, where he spent the remainder of his life, continuing his researches on alcohol and tobacco and lecturing on his findings before the Women's Christian Temperance Union and other interested groups in various towns of Minnesota and Iowa. For several years he served on the city school board of Northfield and also was engaged in overseeing properties in different parts of the state.

Isaac H. Orcutt was first married on May 23, 1876, to Emma A. Fairbanks, of Dodge Center, one of the two daughters of D. C. Fairbanks, farmer and grain and cattle buyer who had large holdings of land in the region of Dodge Center. Dr. and Mrs. Orcutt had one child, Allie Julia, named for Mrs. Orcutt's sister. Emma Fairbanks Orcutt died in Dodge Center on January 28, 1884, in her twenty-ninth year. In 1886 at Brookings, South Dakota, Dr. Orcutt was married to Carrie Ross, an undergraduate student at the college, a daughter of the Reverend Walter Ross, a Baptist minister in a near-by Dakota village; Mrs. Orcutt continued her college work and was graduated. Of this marriage there was one son, Walter Alfred.

Dr. I. H. Orcutt died at his home in Northfield on October 7, 1912, in his sixty-sixth year, of Bright's disease, survived by his wife, his daughter and his son; burial was in Oaklawn Cemetery, Northfield. Mrs. Orcutt died in Tampa, Florida, in 1928, where she had been making her home with her stepdaughter, the wife of

Captain George Stanley Smitzes. Mrs. Smitzes, a former high school teacher, is a graduate of Carleton College and of the Minneapolis School of Music, and has done postgraduate work at the state universities of Wisconsin and Minnesota. Captain Smitzes, veteran of World War I, served in World War II as a duty officer at the Moore General Hospital at Swannanoa, North Carolina. Walter Alfred Orcutt, graduate of Carleton College and teacher of natural sciences at various colleges and universities, died in 1917, within two weeks of graduation from the medical department of Western Reserve University; his son, William Hall Orcutt, of Chicago, born in 1914, a graduate of the University of Chicago and Rush Medical College (1938), during World War II was a captain in the Medical Corps of the Army of the United States, in the Pacific area. Dr. W. H. Orcutt (1946) has a son, Thomas Orcutt, and a daughter.

C. (O. ?) M. Palmer, said to have been a graduate of the Chicago Homeopathic Medical College, a physician and surgeon of nine years' experience, came to Rochester, Minnesota, about December 1, 1875, from St. Charles, Winona County, where he had been in practice four years. In Rochester he opened an office in the Leland Block on Broadway and boarded at the Cook House. The *Rochester Post* of December 25, 1875, announced that Dr. Palmer had removed to Blue Earth City, Minnesota. In the *History of Medicine in Winona County* (1940) it was stated that about 1882 a Dr. Palmer owned a farm in that county.

Martin Thompson Perrine (1817-1900), an eclectic practitioner, was the first resident physician (1855) in Rochester, Minnesota, and the second physician in Olmsted County. It is believed that Dr. Hector Galloway, at Oronoco, preceded him in the county by a few months.

Martin T. Perrine, son of William Perrine, who was a descendant of David Perrin *(David Perrin, The Huguenot, and His Descendants,* 1665-1910, by Howland D. Perrine), emigrated from Pennsylvania into Ohio probably in the eighteen forties. His daughter Minnie, only child of his first marriage, was born in Meadville, Pennsylvania, on July 15, 1840. According to records of the Perrine family, there were two daughters of a second marriage: Jennie, who was married to Ebenezer B. Park, of Boston, and who later lived at Osage Mission, Kansas; and Hattie, who twice married, first to Carlton Shepard and second to A. G. Wallace.

From Ohio Dr. Perrine came with his family to Rochester, Minnesota, arriving in May, 1855. A note appears that in 1858 his office was at the Bell and Fisher Drug store. Minnie Perrine was one of the first pupils, in the summer of 1856, at Rochester's first schoolhouse, a little log building across the Zumbro River in the eastern part of the settlement.

In the autumn of 1860, because of ill health, Dr. Perrine removed to Lake City, Wabasha County, where he entered business in a drug and variety store with his brother, Dr. L. C. Perrine, like himself an eclectic practitioner. It is doubtful that Dr. M. T. Perrine thereafter practiced medicine in Minnesota. In an undetermined year he removed from Lake City to Osage Mission, Kansas, to make his home with his daughter, Mrs. Park. He died at her home (the place of death is sometimes given Chanute, Kansas) on October 13, 1900.

Minnie Perrine was married in Lake City on October 9, 1860, to Franklin A. Poole, of Rochester. Mr. Poole, of English descent, was born in Troy, Geauga County, Ohio, in 1834, and came to Rochester, Minnesota, in 1857 from Dubuque,

Iowa. Most of his adult life he was a merchant and druggist. In 1874 he went into business in Red Wing but in 1880 returned to Rochester, where for many years he was a druggist. Mr. and Mrs. Poole had one child, Alice, who died in infancy; Minnie Perrine Poole died in Rochester in December, 1908.

Robert McEwen Phelps (1858-1928), fifth appointee, in 1885, to the staff of the Second Minnesota Hospital for Insane, at Rochester, Olmsted County, gave forty years of service to the state, nearly twenty-eight years in Rochester and nearly thirteen years in St. Peter, a career of quiet influence and distinction.

Born at Ripon, Wisconsin, on March 15, 1858, Robert McEwen Phelps was the eldest of the three children of Abel McEwen Phelps and Pamelia Church Brockway Phelps, who were natives respectively of Norfolk, Connecticut, and Rochester, New York. Darius Phelps, father of Abel, a farmer as was the son, emigrated from Connecticut to Ohio in the early eighteen thirties and thence to Wisconsin.

Robert McE. Phelps received his early education in the public schools of Ripon and at Ripon College, from which he was graduated in 1880. Having decided on the study of medicine, in order to earn the money for his medical course he taught country school for one year after graduation from Ripon College and then worked with civil engineers for a railroad construction company in Wisconsin and Michigan, and also in Canada, on the first railroad built from Winnipeg to Swift Current. Thereafter he began his medical work under a preceptor, Dr. Rogers, of Ripon, and in 1883 entered Rush Medical College. He was graduated from Rush with the degree of doctor of medicine in March, 1885, and in the same month became Second Assistant Physician at the state hospital in Rochester, the first to hold that position; since 1881 the professional staff had consisted of the medical superintendent (Dr. J. E. Bowers) and one assistant physician.

Ethical, kindly and considerate in all relationships, Dr. Phelps won respect and esteem. He was a member of the Presbyterian Church, and a Republican. His recreational hobby from early years was amateur outdoor photography. Although a worker for the common good, he did not take part in civic affairs or hold public office. His deep interest in the welfare of the insane and his devotion to the art and science of psychiatric medicine filled and shaped his life; he kept abreast of advances in his field and for the good of the work applied his unusual literary talent and teaching ability.

His first four years in Rochester Dr. Phelps served as second assistant physician on the hospital staff. After the reorganization of the hospital in 1889 he became first assistant physician and the next year assistant superintendent. In 1889 there was established at the hospital a training school for attendants, in which he was influential, and in the autumn of 1890, when Dr. A. F. Kilbourne, the superintendent, approved the establishment of a training school for nurses at the hospital, Dr. Phelps became the moving spirit in the undertaking; the purpose was to train nurses for employment in the hospital and ultimately to supply nurses to other hospitals for insane. With the aid of Dr. Sara V. Linton and Dr. Nathan M. Baker, both of whom had joined the hospital staff in October, 1889, Dr. Phelps brought the training school to great success and usefulness, which continued many years. In November, 1890, the medical staff of the hospital, inspired and headed by Dr. Phelps, founded *The Bulletin*, the quarterly "psychiatric bulletin" of which M. K. Amdur wrote in 1941. Although short-lived, this publication was a noteworthy innovation and in it were presented many excellent papers by Dr. Phelps and his colleagues and by certain able psychiatrists from elsewhere in the state.

In the early nineties, in addition to other writings, for medical societies and official journals, Dr. Phelps published three graded text books (Rochester State Hospital Press) for use in the training school, books which had wide distribution in other state hospital training schools also: in 1893, *A Junior Text-Book on Nursing in Bodily and Mental Sickness;* in 1894, with his wife, Sara V. Linton Phelps, *A Senior Text-Book on Nursing in Bodily and Mental Diseases;* and in 1895, *A Text-Book on Nursing in Bodily and Mental Diseases.* During the Rochester period he contributed a weekly column, "The Saturday Philosopher," to the *Rochester Post.*

Throughout his career Dr. Phelps was active in medical societies: the Olmsted County Medical Society, from 1885 (its president, 1891); the Minnesota State Medical Society, from 1889; the Southern Minnesota Medical Association (a founder, 1892); and the American Medical Association. Among the special societies he was a member of the American Neurological Association and the American Medico-Psychological Association (once its president); the second of these groups, about 1921, became the American Psychiatric Association. After leaving Rochester for St. Peter, in 1912, Dr. Phelps was for many years active in the Nicollet-Le Sueur County Medical Society.

Robert McEwen Phelps and Sara Virginia Linton were married in Minneapolis on June 1, 1892. Dr. Linton Phelps continued as an assistant physician at the state hospital until her resignation in February, 1898. Three children were born to Dr. and Mrs. Phelps: Laura Linton, Isabella Brockway and Frances, the last of whom died in October, 1898, aged eleven months. In the spring of 1898 Dr. Linton Phelps contracted pulmonary tuberculosis, which caused her death five years later. Dr. Phelps because of his wife's illness was released from his hospital position for some two years and a half, beginning in June, 1899. After resumption of his work as assistant superintendent he remained at the Rochester State Hospital until September, 1912, when he became superintendent of the Minnesota Hospital for Insane, at St. Peter, succeeding Dr. H. A. Tomlinson. This superintendency Dr. Phelps filled ably until he resigned, because of failing health, on October 1, 1925. Thereafter he made his home with his daughter, Laura L. Phelps (Mrs. Charles Willard) Cross, of Faribault.

Dr. Robert McE. Phelps died at Faribault on October 27, 1928, after a terminal illness of four days, from chronic myocardial degeneration of long standing. His grave is beside that of his wife in Oakwood Cemetery, Rochester. Dr. Phelps was survived by his daughters, Mrs. Cross, of Faribault, and Isabella B. Phelps (Mrs. Floyd B.) Johnson, of St. Peter, and by seven grandchildren in the two families; by his sister, Isabella Phelps (Mrs. Frank E.) Gooding, of Rochester (died, 1944), and a niece, Isabella Gooding (since married to Parker D. Sanders, of Redwood Falls); and his brother, James B. Phelps, of Rochester. After the death of Mrs. Gooding, James B. Phelps made his home with Mr. and Mrs. Sanders; he died in Redwood Falls in March, 1945.

Sara Virginia Linton (Phelps) (1859-1903) was the tenth appointee, as an assistant physician, to the staff of the state hospital for insane at Rochester, Olmsted County, and on October 1, 1889, entered on eight years of exceptionally meritorious service.

Born on September 10, 1859, in Bucks County, Pennsylvania, Sara Virginia Linton was one of the five children of Joseph Linton and Christiana C. Beans Linton. It is of interest that of these children of a farm family in which the professional career had not been traditional, three became physicians. About 1860

Mr. and Mrs. Linton with their children emigrated from Pennsylvania to Wabash County, Indiana, it is said, and soon afterward to southern Minnesota, to settle near Kellogg, Wabasha County, in the days before the railroad had penetrated to that section. Within a few years they removed to Minneapolis, primarily to place the children in school. At a later period the father and two of the daughters filed on tracts of land in northwestern Minnesota.

Sara V. Linton obtained her early education in the common schools of Minneapolis, her academic courses at the University of Minnesota, and her medical training at the Woman's Medical College of Philadelphia. After receiving the degree of doctor of medicine, in 1889, she served for a few months as resident physician at the Northwestern Hospital, Minneapolis, before beginning her work with the insane.

The need for a department of gynecology at the state hospital in Rochester had become apparent by 1889 and inauguration and development of the work were placed in the hands of Dr. Linton. Throughout her service she was in charge of all gynecological procedures. Her "Report of the Gynaecological Department of Rochester State Hospital for 1895" in the *Northwestern Lancet* of April 15, 1896, gives an interesting résumé of the department's history and scope. In it she stated: "We are greatly indebted to the Drs. Mayo, of this city, for their kind assistance in helping us to extend our surgical work to include all of the more grave operations." Dr. Linton Phelps in those major procedures acted as surgical assistant. It was chiefly to meet the need for especially trained attendants in the new department of gynecology that the hospital training school for nurses was established in 1890. In foregoing notes on Dr. Robert McE. Phelps there was mentioned the able work of Dr. Linton in the school. There is record as well of her papers before special groups concerned with the care of the insane, her contributions to the hospital *Bulletin*, and her appearances before medical societies. In July, 1892, she was a founder of the Southern Minnesota Medical Association and in the same period a representative of the Olmsted County Women's Auxiliary to the World's Fair, heading the committee made up of herself, Mrs. W. J. Mayo and Mrs. Mark Olin, that had to do with all matters relating to health and public welfare.

After her marriage, on June 1, 1892, to Dr. Robert McE. Phelps, Dr. Linton Phelps continued her work at the hospital until February, 1898, when she resigned. As stated earlier, in the spring of 1898 she became ill with pulmonary tuberculosis. Changes of residence, to Wisconsin, to Walker, Minnesota, and Phoenix, Arizona, gave only temporary benefit, and on June 21, 1903, a few weeks after her return from Arizona Dr. Linton Phelps died in Rochester in her forty-fourth year. She was survived by her husband and by two little daughters.

Dr. Sara V. Linton Phelps has been described by those who knew her best as a slender woman of medium height and coloring, of special abilities, whose sympathetic and responsive spirit was apparent in her manner and facial expression. The esteem in which she was held in her profession was expressed not alone in tribute at her death but throughout her career by her immediate associates. In the words of Dr. A. F. Kilbourne, superintendent of the Rochester State Hospital in those years, "Her kindly care has brought relief to many a suffering woman, and much credit is due her for her painstaking treatment of these cases." And on her retirement, "Dr. Phelps was a most faithful and efficient officer whose soul was in her work."

The three physician members of the Linton family of Minneapolis were assistant

physicians at the Rochester State Hospital. Dr. Linton Phelps was the first. Dr. Laura A. Linton (1853-1915), a graduate of the medical department of the University of Minnesota in 1900, in June of that year began her work in Rochester; her death occurred there in 1915. The late Dr. William B. Linton (1855-1942), a graduate of Jefferson Medical College, Philadelphia, in 1886, after practicing medicine in Minneapolis twenty-five years, spent fifteen years, beginning in September, 1912, in Rochester. Early in 1928 he returned to Minneapolis, where he carried on a private practice until his death.

Henry Stanley Plummer (1874-1936), distinguished medical scientist, was an associate of the Drs. Mayo in Rochester, Minnesota, from 1901 until his death. Although he was not a resident of Olmsted County before 1900, in the decades of which this article particularly treats, he is included, for reason, in the series of men who practiced in the county in that period: As an undergraduate medical student he spent part of his vacations at St. Mary's Hospital, Rochester, "pursuing the study of the practicing practitioner," as the local press phrased it; in the first two years of his professional life (1898-1900), in country practice, he was even more closely concerned with the practice of medicine in Olmsted County than he was with practice in Mower County, where he lived, and in Fillmore County, where he was born.

Born on March 3, 1874, in the village of Hamilton, Henry S. Plummer was one of the four children of Dr. Albert Plummer, of English descent, and Isabelle Steer Plummer, of Scotch-English parentage. Isabelle S. Plummer, daughter of Greenberry Steer, of Adrian, Michigan, was before her marriage a schoolteacher in various parts of Fillmore County, notably in Rushford and in Sumner Township. Dr. Albert Plummer (1840-1912), one of southern Minnesota's best trained and ablest physicians, was a native of Auburn, New Hampshire, who came to Fillmore County in 1869; a graduate of Bowdoin Medical College in 1867, he earlier was a student at the medical school of Dartmouth College, where his father, Dr. Nathan Plummer, a native of Londonderry, New Hampshire, had been a student in 1816.

Henry S. Plummer grew up in Hamilton, attended the village school, and in 1892 was graduated from high school at Spring Valley, near by. After taking two years of academic work at the University of Minnesota, he enrolled in the medical department of Northwestern University for a course of four years; it was the length of the course, then unusual in this country, and the wealth of clinical material available, that fixed his choice on Northwestern University. In 1898 he received the degree of doctor of medicine and returned home to begin medical practice with his father, who since 1893 had lived in Racine, Mower County; the practice of father and son extended widely into the three counties already mentioned.

From childhood Henry Plummer accompanied his father whenever possible on rounds in village and country and by his sixteenth year he had become a practical clinical assistant. In that year his interest was aroused by an unusual case of goiter in his father's practice, and thereafter, in premedical years, at medical school, and in practice, he gave special attention to the thyroid gland and its diseases. During his formal medical course he began a continuing study of the blood also. Late in 1900 Dr. William J. Mayo, called in consultation by Dr. Albert Plummer in a case of aleukemic leukemia (leukopenic leukemia) was impressed so profoundly by Dr. Henry S. Plummer's knowledge of the blood and by his scientific imagination that on returning to Rochester Dr. Mayo proposed to his brother Dr. Charles H. Mayo that they invite the young physician to Rochester

for a discussion and if possible add him to their staff to bring the clinical laboratories up to date.

Dr. Plummer joined the staff of the Drs. Mayo early in 1901. He became the chief of the Division of Medicine of the Mayo Clinic and a professor of medicine of the Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota. During his thirty-five years in Rochester his work in diversified fields of medical science brought increased distinction to the clinic and merited prestige and high honor to himself. He was the author and the co-author of numerous scientific articles. His contributions to hematology, roentgenology, bronchoscopy, esophagoscopy, electrocardiography, and to knowledge of the physiology and pathology of the thyroid gland are known universally.

He was active in many scientific societies, which are listed in official biographical reference books. In 1935 Northwestern University conferred on him the degree of doctor of science (honoris causa). He was a Republican, a Mason, and a supporter of the Episcopal Church.

To Dr. Plummer, a master of mechanics and an inspired amateur architect, is due much of the efficiency of the Mayo Clinic buildings of 1912 and 1929. When each building took form it was the realization of a dream of the Drs. Mayo and their associates and the embodiment of Dr. Plummer's extraordiary mechanical genius. Perhaps most notable in the structure of 1929 are his numerous devices to facilitate intra-clinical communication and transfer of case records from floor to floor and from the clinic to the affiliated hospitals. In this building he gave new scope to the department of case records and statistics which he had initiated and directed, and he aided in increasing the efficiency of the library. Fittingly, a beautiful auditorium on the fourteenth floor bears his name. Dr. Plummer had a major part also in the design and construction of the Franklin Heating Station in Rochester, and because of his knowledge of physics and engineering he was sought as a consultant by the company that supplies Rochester and vicinity with natural gas.

Well called a genial philosopher and a profound thinker, Dr. Plummer was a man of keen and whimsical wit and humor, a scholar, a patron of the arts, literature and music, a horticulturist of standing; it was his expressed belief that the physician who renders his best service must have cultural interests as well as scientific knowledge. He traveled widely at home and abroad for study and for pleasure; he enjoyed motoring and, for some years in later life, cruising in his powered house boat on the Mississippi River.

Henry Stanley Plummer was married on October 4, 1904, to Daisy M. Berkman, a daughter of Dr. David M. Berkman and Gertrude Emily Mayo Berkman, of Rochester; Mrs. Berkman was the eldest child of Dr. and Mrs. William Worrall Mayo.

On December 31, 1936, in his sixty-third year, Dr. Plummer died from cerebral thrombosis at his home, Quarry Hill, in southwestern Rochester. Burial was in Oakwood Cemetery, Rochester. He was survived by his wife; a daughter, Gertrude Plummer (Mrs. James A.) Thomas, of Rochester; a son, Robert S. Plummer, of Los Angeles; and five grandchildren; and by his brother, Dr. William Albert Plummer, of Rochester.

Dr. W. A. Plummer (1883-1949) in 1910 joined the Drs. Mayo as an assistant in medicine. In 1949 he was the head of a section in medicine (since 1917) of the Mayo Clinic, and an associate professor of medicine, Mayo Foundation,

Graduate School, University of Minnesota. (Dr. W. A. Plummer died at his home in Rochester on March 22, 1949, from heart disease, in his sixty-sixth year.)

In 1950 Mrs. Henry S. Plummer, a talented musician and a leading worker for civic and social welfare in Rochester, continued to make her home at Quarry Hill.

Harriet E. Preston (1840?-1929), unmarried, a graduate of the Woman's Medical College of Pennsylvania in 1868, came to Rochester, Minnesota, in the autumn of 1869 and there practiced medicine and surgery until the summer of 1873, when she removed to St. Paul. She was in active practice in St. Paul through 1888 when, it is believed, she returned to Pennsylvania.

Her office and residence in Rochester first were in the home of Mrs. G. Bisbee, one door north of the Northwestern Wagon and Carriage Works, on Broadway. Later she occupied an office over Poole and Geisinger's Drug Store. Liked as a woman, she had personal friends among the solid citizens of the community, and respected as a physician, she occasionally assisted Dr. W. W. Mayo and other local physicians of excellent standing in consultations and in operative procedures. She was a member of the Rochester Conversazione, successor to or an offshoot of the Olmsted County Medical Society in the early seventies; on one occasion she read before the group an essay on the voice in which she explained the production of the voice and the regulation of its tones. Dr. Preston was licensed in Minnesota on December 28, 1883, under the medical practice act of that year, receiving certificate No. 486 (R).

A few of Dr. Preston's concise writings are preserved in earliest issues of the *Northwestern Medical and Surgical Journal*. One, in 1873, is a report on the causes of diseases peculiar to women, presented before the state board of health and published by request of that board; in the report she stated, "I am satisfied that until the habits of women are modified, neither medical science nor surgical art can give them a satisfactory degree of health." Another, "Why Are These Things So?" is her comment on an article, "Medical Opinions," by Dr. Brewer Mattocks, of St. Paul, which had appeared some weeks earlier. Her theme was the reason why medical opinions rated so low in the scientific and intellectual market. Her plea was for the protection of the title of doctor of medicine from confusion with the titles assumed by numerous sects of "pathists" and for rejection of "the odious and misplaced term *allopath*." She asserted that the knowledge of the medical profession should not be a sealed book and pointed out the need for physicians to lecture before schools, lyceums and scientific associations: "We need more writers, more skilled physicians who can and will, like Oliver Wendell Holmes, give to the world medical facts and philosophy, in a form that will please the taste and instruct the understanding."

(To be continued in the June issue.)

President's Letter

PHYSICIANS AS CITIZENS

Despite the contributions that the medical profession has made to the progress of life and culture, physicians have only recently won their citizenship from the court of American public opinion. Through an honest, vigorous appeal to the people of this country, the profession has regained its aggregate right of free speech and is rapidly attaining a new position of leadership, not only in its pre-empted field of medical science, but in the economic, governmental and social structures of this nation.

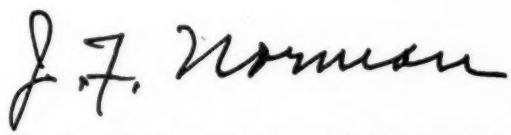
The interest with which the public regards the idea of a doctor being a citizen, too, is an inverted criticism of our all-too-recent abstinence from the affairs of state and nation.

Cumulative and dangerous trends of economic thought catapulted us, ready or not, into active roles in the formation of opinion, policy and law. We have come to realize that the public's health cannot be guarded by medical attention alone, that sometimes an unscrupulous politician can be more threatening than a virus to American health standards and an infiltration of decadent thinking more disastrous than an epidemic.

The onslaught of socialistic propaganda has been countered and virtually inundated by a barrage of truth from the family doctors in every community.

This re-alignment with the public, this new confidence the profession has gained, has developed at a time when national unity is essential. It has been said that total war between two great nations possessing the atom bomb and the means to deliver it could destroy civilization as we know it. Physicians bring to the cause of justice and freedom, the training and ability to act in a crisis. Not easily stampeded by emergencies, physicians, it is hoped, will be able to maintain key civil defense positions, in preparation for a time we pray will never come.

The medical profession is coming of age and assuming its rightful responsibilities in a century of uncertainty and fear and, confronted with multiplying challenges, we can only choose to rise to these challenges as better doctors *and* better citizens.



President, Minnesota State Medical Association

Editorial

OWEN H. WANGENSTEEN AN APPRECIATION

THIS issue of MINNESOTA MEDICINE is being dedicated to Dr. Owen H. Wangensteen in commemoration of the twentieth anniversary of the publication of his first work on the relief of intestinal obstruction by siphonage. We are happy to share in paying tribute to Doctor Wangensteen, and his accomplishments, with the Minnesota Academy of Medicine, which devoted its December meeting to honoring him, and the Saint Paul Surgical Society, which similarly recognized him at its meeting in January at which Dr. Alfred Blalock of Johns Hopkins Medical School was the guest speaker.

The journal has been fortunate in having two original articles written specially for this issue. The first is by Dr. I. S. Ravdin, John Rhea Barton professor of surgery, and Dr. William E. DeMuth, assistant instructor in surgery, University of Pennsylvania School of Medicine. The second is by Dr. Frederick A. Coller, professor of surgery at the University of Michigan, and his associate, Dr. Robert E. Lee Berry, a former student under Dr. Wangensteen. The address given by Dr. C. F. Dixon at the commemorative meeting of the Minnesota Academy of Medicine appropriately appears, too, in this issue.

The medical profession of Minnesota acclaims a man of renown. The present is the most appropriate time to express our appreciation of one of our members, Owen H. Wangensteen.

THE VARIETY CLUB HEART HOSPITAL

THE OPENING and dedication of the Variety Club Heart Hospital on the University of Minnesota campus on March 20, 1951, merits special recognition. It is the culmination of an idea which had its conception in 1945 in a conversation between the late Al Steffes, a theater owner in Minneapolis, himself a sufferer from heart disease, and Dr. Morse J. Shapiro, Associate Professor of Medicine and Pediatrics at the University of Minnesota. The idea was the building of a hospital to be devoted exclusively to the study and treatment of heart disease.

The idea was presented by Mr. Steffes to the Variety Club of the Northwest which had the vision and boldness to sponsor the project. This Variety Club is a so-called "tent" of the parent organization, the Variety Club International, which includes thirty-six "tents" located all over this country, and in Mexico, Canada and England. Membership includes almost anyone connected with the show business. The first club was organized in the late 1920's in Pittsburgh as an entirely social undertaking. In 1928 its character altered when it took over the care of a one-month-old baby foundling left in a Pittsburgh theater. From then on, the club took as its motto, "A little child shall lead them," and the international organization has carried on activities which have benefited thousands of children yearly.

The Variety Club of the Northwest (Tent No. 12) is fifteen years old. In its short existence, it has carried on a number of activities for the benefit of children, such as equipping of a projection room at Glen Lake Sanatorium and supplying a show each week to the patients; contributing to the Twin City Milk Fund; contributing $25,000 to aid refugees from Fascist tyranny. In 1944, it contributed $85,000 to Sister Kenny for polio sufferers.

In 1945 the Variety Club of the Northwest began raising funds for a heart hospital of seventy-eight beds. Aided by other civic organizations, the University of Minnesota, and largely by the public through its contributions of quarters and dimes in collection boxes in theaters all over the Northwest, the local club was able to present the University of Minnesota in September, 1948, with a check of $300,000 to begin construction. During the last three years, it has raised another $160,000 and has promised support to the amount of $25,000 yearly.

About one-third of the total cost of $1,500,000 was raised by the Variety Club. The Federal Government, through the agency of the Hill-Burton act, donated $600,000; the University, in-

dividuals and a bank loan of $100,000 made up the needed total.

The hospital, which is a four-story structure just below and attached to the University Medical Unit, is the last word in hospital construction. One story is devoted to adults, one to children with a school room and theater, and the fourth floor to research. The hospital is being operated by the medical school faculty.

The dedication dinner was held March 20 in the main ballroom of the Coffman Memorial Building. The Variety Club Heart Hospital was graciously presented to the University by Mr. Arthur W. Anderson, Chief Barker of the Variety Club of the Northwest and chairman of its Heart Committee. President Morrill accepted the gift for the University.

No trifling matter, too, is the fund of $500,000 raised by the American Legion and the Legion Auxiliary for the endowment of the American Legion Memorial Professorship to be devoted to research in heart disease as it affects children. Dr. Lewis Thomas is the first research professor. Another professorship established in the will of the late George S. Clark will be devoted to research in heart and allied diseases in the adult. Other generous grants for research in heart disease have been made by the Helen Hay Whitney Foundation, the Silas McClure Fund, the Minnesota Heart Association, the Alpha Phi Society, and the Minneapolis Chapter of the Society for the Preservation and Encouragement of Barber Shop Quartet Singing in America.

The Variety Club Heart Hospital is the culmination of the efforts of many individuals and organizations in response to a spark which started a widespread response in the hearts of many Minnesota citizens.

MEDICAL SCHOOLS AND THE AMA

SOME of the accusations cast at times at the organized profession show a woeful lack of knowledge of the facts.

The profession, that is, the AMA, has recently been accused of deliberately restricting the production of doctors in order to reduce competition and insure its financial well-being. How impossible this would be is brought out by Dr. Henderson, president of the AMA, in a recent article.* While physicians have been active as individuals and groups in the establishment of medical schools, the organized profession has never set a quota for the number of medical schools nor the number of medical students. If it had, such action would have had no authority, for medical schools are administered by medical faculties, university administrators and trustees.

Back in 1910, the publicity that followed the Simon Flexner survey of medical schools in the country resulted in the abolition of many poorly equipped medical schools and the consolidation of others. The AMA began rating medical schools that same year, and the quality of medical education has continuously improved since that date. As a result the medical care of the people has correspondingly been bettered. Now comes the criticism that the standards set by the Council on Medical Education and Hospitals for medical schools are so high that their cost of administration is prohibitive. The answer is that the standards set are limited to basic principles that reflect educational policies developed and practiced by leading medical schools and provide great leaway for individuality in the various schools. Actually the standards established are not prohibitive. Medical schools are at present being contemplated in New Jersey and in Florida.

As a matter of fact, the establishment and development of medical schools have been, by and large, co-operative undertakings between members of the profession and universities, as is only proper. The same co-operation should continue in the administration of medical schools and doubtless will.

*Henderson, Elmer L.: Medicine and medical education. M. Ann. District of Columbia, 20:181, (April) 1951.

SENATOR HUMPHREY'S BABIES

ACCORDING to the *Bulletin of the AMA* issued by the Washington office under date of April 5, 1951, Senator Humphrey of Minnesota introduced on March 30 a bill (S 1235) in the Senate "To extend to persons entitled to receive medical care by or through the Veterans Administration the right to elect, to receive Chiropractic treatment." The bill provides that the Chief Medical Director of the VA would be required to make services of qualified chiropractors available to veterans. Senator Magnuson prepared the bill at the request of the Director of the Veterans of Foreign Wars, and for reasons un-

known to us the bill was presented by Senator Humphrey. This is another example of the kind of enlightened leadership which our Senator Humphrey has shown in the past.

Senator Humphrey has also submitted a bill (S 1245) "To establish a program of grants-in-aid to assist the States to provide maternity and infant care for the wives and infants of enlisted members of the Armed Forces during the present emergency." This is a plan similar to the EMIC of World War II. It differs, however, in that it provides benefits for all enlisted members of the Armed Forces instead of just the lowest four pay-grades. The matter of doctors' fees and hospital payments is left to the Administration of the Federal Security Agency. This legislation, if enacted, would cease to be effective at the close of the fiscal year in which the President declares an end to the national emergency.

This bill has had the backing of service organizations, both public and private. On March 28, 1951, the Minnesota State Legislature passed a resolution which was signed by the Governor requesting Congress to provide this additional remuneration for the families of men in service. Much as government-operated medical care and fees determined by the government are distasteful to the medical profession, it cannot be denied that enlisted personnel in the low-pay brackets cannot provide medical care for their wives and infants when their families increase. The administration of the EMIC program during World War II provided essentially for obstetrical care furnished by general practitioners. The fees allowed for obstetrical care were not what specialists, as a rule, charged. The obstetrical care provided, however, was good medical care. Snags in the operation of the law were encountered in the designation and selection of specialists as consultants. Probably leaving the selection of a consultant to the obstetrician in charge of the case would work most equitably in event this proposed bill is enacted, which it probably will. The general practitioner best knows the surgeon in his community whose opinion on a surgical or orthopedic problem is of value in consultation.

THE MINNESOTA STATE BOARD OF MEDICAL EXAMINERS

230 Lowry Medical Arts Building
Saint Paul 2, Minnesota
Julian F. Dubois, M.D., Secretary

Saint Paul Man Pleads Guilty to Abortion Charge

Re. State of Minnesota vs. John W. Foster

On April 2, 1951, John W. Foster, fifty-four years of age, 276 Ramsey Street, Saint Paul, Minnesota, entered a plea of guilty in the District Court of Ramsey County, to an information charging him with the crime of abortion. Foster had been arrested on March 6, 1951, following information received by the Minnesota State Board of Medical Examiners that an abortion had been performed on a twenty-five-year-old Saint Paul divorcee. Foster, upon being arraigned in the District Court, admitted that he had performed the abortion and received $50.00 for his services. Foster denied having performed any other abortions and claimed that his present difficulty was due to excessive drinking. Judge Arthur A. Stewart continued the case to April 16, for a pre-sentence investigation. On April 16, Foster was sentenced to a term of not to exceed four years in the State Reformatory at St. Cloud, the sentence being stayed and the defendant placed on probation.

Foster, who holds no license to practice any from of healing in the State of Minnesota, stated to the Court that he was born at Eagle Point, Wisconsin; that he completed the eighth grade in school and has lived in Saint Paul since 1928. Foster stated that he had been doing photographic work and had worked part time as a musician. Foster was defeated as a candidate for sheriff in the 1950 election.

TROUBLE MAKERS

Some people are inclined frequently to exaggerate in their statements. Some authors do so deliberately in order to start talk and, in the case of lay journals, increase sales. Such is an article entitled "Trouble in Our Hospitals" by Albert Deutsch which appeared recently in the *Woman's Home Companion.* In reply the secretaries of the American Hospital Association and the secretary of the American Medical Association sent the following telegram to the editor of the *Woman's Home Companion.* After all he didn't have to publish the article and a very little inquiry would have disclosed its misleading nature.

The telegram read as follows:

We wish to protest strongly the tone of "Trouble in Our Hospitals" by Albert Deutsch in the current issue of *Woman's Home Companion.*

While it is true there are some areas of disagreement between physicians and hospitals—just as there are in all human relationships—the author of this article has magnified these differences of opinion out of all proportion to the truth. His statement that "the AMA and the hospitals, which should be marching hand in hand toward better services for the sick, are locked in combat," is nothing short of sensationalism.

The doctors and hospitals have always co-operated in efforts to deliver the best possible medical care and will continue to do so. Any differences are being ironed out peaceably around the conference table.

GEORGE F. LULL, *Secretary and General Manager*
American Medical Association
GEORGE BUGBEE, *Secretary*
American Hospital Association

Medical Economics

Edited by the Committee on Medical Economics
of the
Minnesota State Medical Association
George Earl, M.D., Chairman

AMA JOURNAL MISSING? PAY 1950 DUES

Members of the American Medical Association who are not receiving their *AMA Journal*, should, according to word from the American Medical Association, see that they have paid their 1950 dues. Numerous inquiries about the situation throughout the country have brought this answer: when the 1950 dues were not paid by the end of the year, the doctor was entered in the category of delinquent membership in the AMA, and his name was automatically removed from the roster of members and from the list of those who receive the *Journal*.

The American Medical Association informed doctors that delinquent members will not be entered on the circulation list of the *Journal* until they have been reinstated to full membership, which means that they must pay BOTH their 1950 and 1951 dues. Direct word also states that "members who paid their 1950 dues on time (before the end of 1950) are in good standing and have until the end of 1951 to pay their 1951 dues. They will continue to receive the *Journal* during 1951 even if they cannot pay their 1951 dues until later this year."

After delinquent members have paid up both their 1950 and 1951 dues, they are reinstated and will begin receiving the *Journal* again. However, says the AMA, they should not expect to get the *Journal* the following week after they have written out their check. The process of reinstatement is often complicated and involves considerable office procedure. Prompt payment of dues will assure prompt delivery of the *Journal of the American Medical Association*.

BRITISH HEALTH SERVICE NEEDS DEATH "POTION"

Expressing the opinion of many forthright citizens of both England and America, the *Journal of the Oklahoma State Medical Association* recently suggested that the British Health Service, because of its countless shortcomings, be given a "lethal potion" to put it out of its misery. Quoting *Time* magazine's recent article on the "meatless muddles of the Socialist government," it tells of one British doctor's comment, which seems to summarize much that has been said of the system. The doctor said that, "The strain of living conditions is making people take sleeping tablets like a second vegetable."

The medical journal makes this comment on the "calamity of compulsion:"

> "Unfortunately, a sound sleep . . . under the National Health Service brings surcease of short duration with the inevitable return to hunger and hopelessness. Indeed this is poor compensation for such calamity.
>
> "All this is reminiscent of the long standing quip, 'the more good beefsteaks in Britain, the more brave soldiers.' According to current reports, even the harassed hungry doctors would like to take a pill and sleep off this ugly nightmare. How about a lethal potion for the National Health Act."

REPORT ISSUED ON VOLUNTARY INSURANCE

A report submitted to the subcommittee on health of the Senate committee on labor and welfare, recently gave a comprehensive picture of the operations in the health insurance field of the insurance business in the United States. According to *Eastern Underwriter*, the report "revealed the important role played by the insurance business in the spectacular progress made by voluntary health insurance in the last few years in helping the American people to meet the unpredictable costs of hospital and medical care." The report stated:

> "As of the end of 1949, protection provided by insurance companies represented 46 per cent of all hospitalization insurance carried by the American people at that time, three-fifths of all surgical expense protection, and one-third of all medical expense protection. In all, 41 per cent of the population were covered for

hospitalization insurance at the end of 1949, 25 per cent of the population for surgical expense, and 9 per cent for medical expense."

The report was based on the volume of business done by seven associations which represent over 200 companies, which, combined, account for over seven-eighths of the total health and accident business done by insurance companies in the United States.

A breakdown of figures showed detailed information on types of policies, benefit provisions, distribution of coverage by states, and samples of ownership by sex, age, occupation and income brackets. Some of the main points were:

"Women represent nearly half of those covered under group hospital contracts written by insurance carriers on adults, 45 per cent of those under group surgical contracts, and 40 per cent of the number of adults under group medical insurance contracts. There is a substantial proportion of coverage among farmers and farm laborers, refuting the frequent assertion that health insurance is largely lacking in rural areas . . . A recent analysis of a group of newly-issued hospital expense policies indicates that approximately two-thirds of those obtaining this protection were in income brackets under $4,000 a year. Every state and the District of Columbia have substantial voluntary health insurance coverage . . ."

JOURNAL EXPRESSES LONG-RANGE VIEWPOINT

During this period of world affairs, when everyone seems to have a quick cure for the world's ills, stable ideas and views come from many sources—and those ideas are often left unnoticed. One such is a recent editorial in the *New England Journal of Medicine* which urges mankind to take the long view of things: "were some safe plateau of mutual understanding to be reached, a morass of unnecessary human misery might be avoided by everyone."

Continuing, the *Journal* says:

"There is little doubt that the more ardent proponents of compulsory health insurance, so called, believe that modified socialism represents a political status that can be maintained, and that those citizens capable of the most intelligent leadership and imbued with the purest motives will automatically rise, like cream, to the top. Their opponents, on the other hand, despite their bitter vehemence, have no good reason for not examining with an open mind any proposals that are made and accepting those that can be said to represent progress toward a common goal.

". . . the difficulty for those who wish to be honest is not in deciding whether to follow a right course or a wrong one; it lies in liberating their minds from misconceptions and prejudices, so that they may more accurately decide where the greater good may lie. In doing this, they may realistically appreciate their opponents' reasons for holding to their own views."

The *Journal* wonders if man's apparent progress is only that of Sisyphus, the man who labored eternally with a stone toward the unattainable summit of the hill. "Man still must learn that true progress is not made through scientific achievement or the acquisition of knowledge, but through the wise application of their resources," the *Journal* declares.

Through this highly philosophical viewpoint comes the added meaning that not only medicine and all other professions, but the whole of mankind, must resolutely look itself in the face, rate itself with merits and demerits, and work out its own salvation.

The *Journal's* "far viewpoint" is concluded with this:

"Salavation for the present race of mankind, if it is to come, will come not through the development of superior qualities, but through the proper use of the talents that man now possesses. It is not his to soar on wings attached with wax, but to stand erect on the good earth he now inhabits. The capacity is present. What is necessary is education, with emphasis on ethics, and a stirring of the loftier minds to assume that leadership without which the goal so nearly won is lost."

DEFENSE FUNDS FOR BETTER HEALTH?

Evidence that administration forces would try to include their pet schemes in defense budgeting, has again been noted by the *Wall Street Journal*, about which the paper quickly sets out to "let the people know." Quoting Truman as saying, "Our defense needs include, in many areas, more food, better education, and better health services," the *Journal* goes on:

"No one can argue that more food, better education and better health are not desirable. But whenever such ideas come to the front they're inevitably coupled with the further idea that Uncle Sam is the one to put up the money to make them possible. Point Four is already underway as the current caboose on our billions-of-dollars foreign aid train. There's a good chance that it will become a global freighter all on its own, to carry our dollars around the world.

"Every dollar that goes abroad this way is a dollar less for our own schools, our own streets and our many local services which have deteriorated under two decades of depression and war."

Minnesota State Medical Association

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R. S. Hegge ..... Austin
P. A. Robertson ..... Austin
R. R. Wright ..... Austin
L. F. Twiggs ..... Austin

MURRAY COUNTY
B. M. Stevenson ..... Fulda
R. F. Pierson ..... Slayton
H. D. Patterson ..... Slayton

NICOLLET-LE SUEUR COUNTY
Hobart Johnson ..... North Mankato
L. E. Sjostrom ..... St. Peter
M. E. Lenander ..... St. Peter

NOBLES COUNTY
E. W. Arnold ..... Adrian
E. A. Kilbride ..... Worthington
C. R. Stanley ..... Worthington

NORMAN COUNTY
Eskil Erickson ..... Halstad
Theodore Loken ..... Ada
Bruce Boynton ..... Ada

OLMSTED COUNTY
H. F. Polley ..... Rochester
T. O. Wellner ..... Rochester
C. B. McKaig ..... Pine Island

OTTER TAIL COUNTY
Charles Lewis ..... Henning
W. L. Burnap (Deceased) ..... Fergus Falls

PENNINGTON COUNTY
O. F. Mellby ..... Thief River Falls
T. E. Bratrud ..... Thief River Falls
M. D. Starekow ..... Thief River Falls

PINE COUNTY
A. K. Stratte ..... Pine City
E. G. Hubin ..... Sandstone
H. P. Dredge ..... Sandstone

PIPESTONE COUNTY
W. G. Benjamin ..... Pipestone
J. G. Lohmann ..... Pipestone
G. Beckering ..... Edgerton

POLK COUNTY
C. L. Oppegaard ..... Crookston
J. F. Norman ..... Crookston
George Sather ..... Fosston

POPE COUNTY
Paul Swedenberg ..... Glenwood
A. F. Giesen ..... Starbuck
B. A. McIver ..... Lowry

RAMSEY COUNTY
A. G. Schulze ..... Saint Paul
T. S. McClanahan ..... White Bear Lake
Earl Black ..... St. Paul

RED LAKE COUNTY
L. N. Dale ..... Red Lake Falls
A. M. McKaig ..... Red Lake Falls

RENVILLE COUNTY
J. Dordahl ..... Sacred Heart
S. F. Ceplecha ..... Redwood Falls
E. C. Gaines ..... Buffalo Lake

RICE COUNTY
D. W. Francis ..... Morristown
P. H. Weaver ..... Faribault
Warren Wilson ..... Northfield

ROCK COUNTY
C. L. Sherman ..... Luverne
A. C. Martin ..... Luverne
F. W. Bofenkamp ..... Luverne

ROSEAU COUNTY
J. L. Delmore, Sr. ..... Roseau
D. O. Berge ..... Roseau

ST. LOUIS COUNTY
M. G. Fredricks ..... Duluth
J. A. Malmstrom ..... Virginia
J. K. Butler ..... Cloquet

SCOTT COUNTY
H. M. Jurgens ..... Belle Plaine
B. F. Pearson ..... Shakopee
F. P. Kortsch ..... Prior Lake

SHERBURNE COUNTY
A. B. Roehlke ..... Elk River
E. F. Clothier ..... Elk River
G. H. Tesch ..... Elk River

SIBLEY COUNTY
Rolf Hovde ..... Winthrop
Thomas Martin ..... Arlington
D. C. Olson ..... Gaylord

STEARNS COUNTY
R. N. Jones ..... St. Cloud
K. A. Walfred ..... St. Cloud
C. F. Brigham ..... St. Cloud

STEELE COUNTY
D. H. Dewey ..... Owatonna
D. W. Roberts ..... Owatonna
J. F. Schaefer ..... Owatonna

STEVENS COUNTY
M. L. Ransom ..... Hancock
R. A. Rossberg ..... Morris
A. I. Arneson ..... Morris

SWIFT COUNTY
E. J. Kaufman ..... Appleton
R. P. Griffin ..... Benson
Hans Johnson ..... Kerkhoven

TODD COUNTY
M. E. Mosby ..... Long Prairie
J. M. Cook ..... Staples
C. B. Will ..... Bertha

TRAVERSE COUNTY
A. L. Lindberg ..... Wheaton
A. E. Magnuson ..... Wheaton
W. F. Muir ..... Browns Valley

WABASHA COUNTY
C. G. Ochsner ..... Wabasha
E. C. Bayley ..... Lake City
E. W. Ellis ..... Elgin

WADENA COUNTY
L. T. Davis ..... Wadena
C. H. Pierce ..... Wadena
W. E. Parker ..... Sebeka

WASECA COUNTY
G. H. Olds ..... New Richland
H. M. McIntire ..... Waseca
B. J. Gallagher ..... Waseca

WASHINGTON COUNTY
W. R. Humphrey ..... Stillwater
Russell E. Carlson ..... Stillwater

WILKIN COUNTY
W. E. Wray ..... Campbell

WINONA COUNTY
R. H. Wilson ..... Winona
R. B. Tweedy ..... Winona
Herbert Heise ..... Winona

WRIGHT COUNTY
John J. Catlin ..... Buffalo
C. L. Roholt ..... Waverly

YELLOW MEDICINE COUNTY
R. H. Kath ..... Wood Lake
E. R. Hudec ..... Echo
Carl Lundell ..... Granite Falls

Councilor Districts

First District

J. M. Waugh, M.D. ..... Rochester
Counties—Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, Winona

Second District

R. C. Hunt, Sr., M.D. ..... Fairmont
Counties—Cottonwood, Faribault, Jackson, Martin, Murray, Nobles, Pipestone, Rock.

Third District

L. G. Smith, M.D., ... Montevideo
Counties—Big Stone, Chippewa, Kandiyohi, Lac Qui Parle, Lincoln, Lyon, Meeker, Pope, Renville, Stevens, Swift, Traverse, Yellow Medicine.

Fourth District

H. J. Nilson, M.D. ..... North Mankato
Counties—Blue Earth, Brown, Carver, Le Sueur, McLeod, Nicollet, Redwood, Scott, Sibley, Waseca, Watonwan.

Fifth District

Justus Ohage, M.D. ..... Saint Paul
Counties—Anoka, Chisago, Dakota, Isanti, Kanabec, Mille Lacs, Pine, Ramsey, Sherburne, Washington.

Sixth District

O. J. Campbell, M.D. ..... Minneapolis
Counties—Hennepin, Wright

Seventh District

W. W. Will, M.D. ..... Bertha
Counties—Aitkin, Beltrami, Benton, Cass, Clearwater, Crow Wing, Hubbard, Koochiching, Morrison, Stearns, Todd, Wadena.

Eighth District

W. L. Burnap, M.D. (Deceased) ..... Fergus Falls
Counties—Becker, Clay, Douglas, Grant, Kittson, Lake of the Woods, Mahnomen, Marshall, Norman, Otter Tail, Pennington, Polk, Red Lake, Roseau, Wilkin.

Ninth District

A. O. Swenson M.D. ..... Duluth
Counties—Carlton, Cook, Itasca, Lake, St. Louis.

Woman's Auxiliary
to the
Minnesota State Medical Assocation

Officers

Mrs. F. P. Moersch	*President*	Rochester
Mrs. C. L. Sheedy	*President-Elect*	Austin
Mrs. Charles W. Waas	*Past President*	Saint Paul
Mrs. Harry Klein	*First Vice President*	Duluth
Mrs. Reuben F. Erickson	*Second Vice President*	Minneapolis
Mrs. Andrew Christiansen	*Third Vice President*	Saint Paul
Mrs. R. L. J. Kennedy	*Fourth Vice President*	Rochester
Mrs. Harold G. Benjamin	*Recording Secretary*	Minneapolis
Mrs. H. M. Carryer	*Corresponding Secretary*	Rochester
Mrs. P. S. Rudie	*Treasurer*	Duluth
Mrs. J. C. Buscher	*Auditor*	Saint Cloud
Mrs. L. Raymond Scherer	*Historian*	Minneapolis
Mrs. S. S. Hesselgrave	*Parliamentarian*	Center City

Regional Advisors

Mrs. W. A. Merritt	*First District*	Rochester
Mrs Walter Benjamin	*Second District*	Pipestone
Mrs. O. B. Fesenmaier	*Third District*	New Ulm
Mrs. Donald C. Anderson	*Fourth District*	Danube
Mrs. C. Harry Ghent	*Fifth District*	Saint Paul
Mrs. Frederick H. K. Schaaf	*Sixth District*	Minneapolis
Mrs. G. H. Goehrs	*Seventh District*	Saint Cloud
Mrs. C. L. Oppegaard	*Eighth District*	Crookston
Mrs. John K. Butler	*Ninth District*	Cloquet

Chairmen of Committees

Standing Committees

Advisory—Mrs. Charles W. Waas.....Saint Paul

Archives—Mrs. J. M. Neal.....Saint Paul

Bulletin—Mrs. John Dordal.....Sacred Heart

Cancer—Mrs. L. P. Howell.....Rochester

Editor, Minnesota Medicine—
Mrs. H. O. Beek.....Saint Paul

Emergency Nursing—Mrs. Ivar Sivertsen..Minneapolis

Finance—Mrs. Mark Ryan.....Saint Paul

Today's Health—Mrs. B. M. Black.....Rochester

Legislation—To be appointed.

Medical and Surgical Relief—
Mrs. L. G. Culver.....Saint Paul

Organization—Mrs. C. L. Sheedy.....Austin

Press and Publicity—
Mrs. A. B. Rosenfield.....Minneapolis

Printing—Mrs. V. J. Schwartz.....Minneapolis

Program and Health Education—
Mrs. David Halpern.....Brewster

Public Relations—Mrs. L. J. Leonard.....Minneapolis

Resolutions—Mrs. S. C. G. Oeljen.....Waseca

Revisions—To be appointed.

Social—Mrs. Henry Quist.....Minneapolis

Special Committees

News Letter—Mrs. Leonard Arling.....Minneapolis

Roster—Mrs. Leo A. Nash.....Saint Paul

Workshop—Mrs. Wallace P. Ritchie.....Saint Paul

Health Days—Mrs. W. G. Johanson.....Saint Paul

In Memoriam—Mrs. S. J. Hillis.....Minneapolis

County Society Roster

Key to Symbols: *Deceased; †Affiliate, Associate or Life Members; ‡In Service; §Wife is Member of Woman's Auxiliary.

BLUE EARTH COUNTY MEDICAL SOCIETY

Regular meetings, last Monday of each month
Annual meeting, May
Number of Members: 51

President
Howard, M. I. ..... Mankato

Secretary
Chalgren, Wm. S. ..... Mankato

‡ Aga, John ..... Mankato
Anderson, J. J. ..... Mankato
Andrews, R. N. ..... Mankato
Batdorf, B. N. ..... Good Thunder
§ Butzer, J. A. ..... Mankato
§ Chalgren, Wm. S. ..... Mankato
§ Conley, R. H. ..... Mankato
§† Dahl, G. A. ..... Mankato
§ Dahlstet, J. P. ..... Mankato
Denman, A. V. ..... Mankato
† Edwards, R. T. .... Columbus, Ohio
§ Engstrom, Robert ..... Mankato
§ Eustermann, J. J. ..... Mankato
§ Franchere, F. Wm. .. Lake Crystal
Fugina, G. R. ..... Mankato
§ Geurs, B. R. ..... Mankato
§ Haes, J. E. ..... Mankato
§ Hammar, L. M. ..... Mankato
Hankerson, R. G. .. Minnesota Lake
§ Hassett, R. G. ..... Mankato
§ Hoeper, P. G. ..... Mankato
Howard, E. G. ..... Mapleton
§ Howard, M. I. ..... Mankato
Huffington, H. L. ..... Mankato
§ Jones, O. H. ..... Mankato
† Juliar, R. O. ..... St. Clair
§ Kaufman, W. B. ..... Mankato
§ Kearney, R. W. ..... Mankato
§ Keil, M. A. ..... Mankato
§ Kemp, A. F. ..... Mankato
Koenigsberger, Chas. ..... Mankato
§ Langhoff, A. H. ..... Mankato
† Liedloff, A. G. ..... Mankato
Lindblom, A. E. ..... No. Mankato
Luck, Hilda ..... Mankato
Mickelson, J. C. ..... Mankato
§† Miller, V. I. ..... Mankato
Morgan, H. O. ..... Amboy
§ Penn, G. E. ..... Mankato
§ Samuelson, L. G. ..... Mankato
† Schmidt, P. A. .... Monroe, Oregon
Schmitz, A. A. ..... Mankato
§ Sjoding, J. D. ..... Mankato
Smith, P. M. ..... Lake Crystal
§† Sohmer, A. E. ..... Mankato
§ Stillwell, W. C. ..... Mankato
§ Troost, H. B. ..... Mankato
Vezina, J. C. ..... Mapleton
Von Drasek, Joseph ..... Mankato
† Wentworth, A. G. ..... Mankato
Williams, H. O. ..... Lake Crystal

BLUE EARTH VALLEY MEDICAL SOCIETY

Regular meetings, third Thursday of each month
Annual meeting in November
Number of Members: 36

President
Zemke, E. E. ..... Fairmont

Secretary
Boysen, Herbert ..... Madelia

Armstrong, R. S. ..... Winnebago
Barr, W. H. ..... Wells
§ Blumberg, H. B. ..... Fairmont
§ Boysen, Herbert ..... Madelia
Burmeister, R. O. ..... St. Paul
§ Chambers, W. C. ..... Blue Earth
Cooper, M. D. ..... Winnebago
Drexler, G. W. ..... Blue Earth
† Farrish, R. C. ..... Sherburne
§ Gardner, V. H. ..... Fairmont
§ Grogan, J. M. ..... Ceylon
Hanson, Lewis ..... Frost
Heimark, J. J. ..... Fairmont
† Holm, P. F. ..... Sarasota, Fla.
Hunt, R. C. ..... Fairmont
§ Hunt, R. S. ..... Fairmont
† Hunte, A. F. ..... Alhambra, Calif.
Krause, C. W. ..... Fairmont
Lester, M. J., Jr. ..... Truman
McGroarty, J. J. ..... Easton
Medlin, C. F. ..... Minneapolis
§ Mills, J. L. ..... Winnebago
§ Misbach, Wm. D. ..... Fairmont
Parsons, R. L. ..... Monterey
§ Rollins, T. G. ..... Elmore
Rowe, W. H. ..... Fairmont
§ Russ, H. H. ..... Blue Earth
Smith, D. V. ..... Blue Earth
§ Snyder, C. D. ..... Kiester
§ Thayer, E. A. ..... Fairmont
Vaughan, V. M. ..... Truman
§ Virnig, M. P. ..... Wells
§ Virnig, R. P. ..... Wells
§ Wandke, O. E. ..... Fairmont
Wilson, C. E. ..... Blue Earth
§ Zemke, E. E. ..... Fairmont

BROWN-REDWOOD-WATONWAN MEDICAL SOCIETY

Regular meetings, quarterly
Annual meeting, May
Number of Members: 37

President
Bregel, Fred L. ..... St. James

Secretary
Fritsche, C. J. ..... New Ulm

Ayres, R. W. ..... Little Rock, Ark.
Benton, P. C. ..... Minneapolis
Bergman, O. B. ..... St. James
§ Black, W. A. ..... New Ulm
Bratrude, E. J. ..... St. James
Bregel, F. L. ..... St. James
Cairns, R. J. ..... Redwood Falls
§ Coulter, H. E. ..... Madelia
§ Dubbe, F. H. ..... New Ulm
§ Dysterheft, A. F. ..... Gaylord
Esser, O. J. ..... New Ulm
§ Fesenmaier, O. B. ..... New Ulm
§† Flinn, J. B. ..... Pt. Blakely, Wash.
§ Fritsche, Albert ..... New Ulm
§ Fritsche, Carl J. ..... New Ulm
§ Fritsche, T. R. ..... New Ulm
§ Gibbons, F. C. ..... Comfrey
§ Glaeser, J. H. ..... Gibbon
§ Goblirsch, A. P. ..... Sleepy Eye
Howde, Rolf ..... Winthrop
Johnson, A. F. .. Indianapolis, Ind.
Just, H. J. ..... Hastings
§ Keithahn, E. E. ..... Sleepy Eye
§ Kruzick, S. J. ..... Sleepy Eye
§ Kusske, A. L. ..... New Ulm
§ Kusske, B. W. ..... St. Louis Park
Mattson, A. D. ..... St. James
Nelson, G. E. ..... Fairfax
Nuessle, W. G. ..... Springfield
§ Penk, E. L. ..... Springfield
Peterson, R. A. ..... Vesta
§† Reineke, G. F. ..... New Ulm
§ Saffert, C. A. ..... New Ulm
Schroeppel, J. E. ..... Winthrop
§ Seifert, O. J. ..... New Ulm
Vogel, H. A. ..... New Ulm
§ Wohlrabe, E. J. ..... Springfield

CAMP RELEASE DISTRICT MEDICAL SOCIETY

Chippewa, Lac Qui Parle and Yellow Medicine Counties
Regular meetings, April, May, September and October
Annual meeting, October
Number of Members: 28

President
Burns, F. M. ..... Milan

Secretary
Krystosek, L. A. ..... Clara City

Anderson, C. A. ..... Madison
† Andrejek, A. R. ..... Milaca
§ Boody, G. J., Jr. ..... Dawson
§ Burns, F. M. ..... Milan
§ Burns, M. A. ..... Milan
Guilbert, G. D. ..... Legion, Texas
§ Hartfiel, H. A. ..... Montevideo
§ Hauge, M. I. ..... Clarkfield
Holmberg, L. J. ..... Canby
§ Hudec, E. R. ..... Echo
Hudspeth, Wm. T. ..... Madison
§ Johnson, C. M. ..... Clarkfield
§ Johnson, V. M. ..... Dawson
† Jordan, Kathleen ..... Granite Falls
Jordan, L. S. ..... Granite Falls
Kath, R. H. ..... Woodlake
Kaufman, W. C. ..... Appleton
§ Krystosek, L. A. ..... Clara City
† Lee, Walter N. .. Claremont, Calif.
§ Lima, L. R., Jr. ..... Montevideo
§ Lundell, C. L. ..... Granite Falls
Nelson, M. S. ..... Granite Falls
§ Owens, W. A. ..... Montevideo
Pertl, A. L. ..... Canby
§ Roust, H. A. ..... Montevideo
§ Schmidt, P. G., Jr. .... Granite Falls
§ Smith, L. G. ..... Montevideo
§ Westby, Magnus ..... Madison

CLAY-BECKER COUNTY MEDICAL SOCIETY

Regular meetings—None
Annual meeting, December
Number of Members: 23

President
Larson, Arnold .....Detroit Lakes

Secretary
Dodds, Wm. C. .....Detroit Lakes

† Aborn, W. H. .....Hawley
* Bloemendaal, E. J. G. ..Lake Park
Bottolfson, B. T. .....Moorhead
Cedarleaf, Cherry B. ..Detroit Lakes
§ Dodds, Wm. C. .....Detroit Lakes
§ Duncan, J. W. .....Moorhead
Ellingson, A. R. .....Detroit Lakes
Hagen, O. J. .....Moorhead
Humphrey, E. W. .....Moorhead
Ingebrigtson, E. K.
Big Springs, Texas
Johnson, Olga H. .....Moorhead
§ Larson, Arnold .....Detroit Lakes
§ Midthune, A. S. .....Lake Park
§ Moberg, C. W. .....Detroit Lakes
Moe, A. E. .....Moorhead
§ Oliver, James .....Moorhead
§ Otto, H. C. .....Frazee
§ Rice, H. G. .....Moorhead
§ Rutledge, L. H. .....Detroit Lakes
Saxman, Gertrude Olsen..Georgetown
Simison, Carl .....Barnesville
Thysell, F. A. .....Moorhead
Thysell, V. D. .....Hawley

EAST CENTRAL MINNESOTA MEDICAL SOCIETY

Anoka, Chisago, Isanti, Kanabec, Mille Lacs, Pine and Sherburne Counties
Regular meetings, first Tuesday of February, April, June, August, October and December
Annual meeting, first Tuesday in December
Number of Members: 43

President
Miller, E. W. .....Anoka

Secretary
Roehlke, A. B. .....Elk River

§ Albrecht H. H. .....Chisago City
Arends, A. L. .....Cokato
Berge, H. L. .....Mora
Beyer, E. F. .....Braham
§ Blomberg, W. R. .....Princeton
Bossert, C. S. .....Mora
§ Bunker, B. W. .....Anoka
Clothier, E. F. .....Elk River
† Dedolph, T. H. .....Braham
Dredge, H. P. .....Sandstone
Engel, R. C. H. .....Cambridge
§ Gully, R. J. .....Cambridge
Halpin, J. E. .....Rush City
§ Hedenstrom, L. H. .....Cambridge
Holmes, A. E. .....Rush City
Hubin, E. G. .....Sandstone
Kapsner, A. T. .....Princeton
Kelsey, C. G. .....Hinckley
Krieser, A. E. .....Anoka
Larson, G. E. .....Cambridge
Lorton, W. L. .....Anoka
Mach, R. F. .....Rush City
Magnuson, R. C. .....Cambridge
March, Kenneth A. .....Cambridge
§ McManus, W. F. .....Princeton
Metcalf, N. B. .....Onamia
§ Miller, E. W. .....Anoka
§ Nordman, W. F. .....Mora
Nygren, W. T. .....Braham
O'Hanlon, J. A. .....Minneapolis
§ Roehlke, A. B. .....Elk River
Sanderson, D. J. .....Princeton
Schlesselman, G. H. ...Minneapolis
§ Sherman, H. T. .....Cambridge
Spurzem, R. J. .....Anoka
* Stephan, E. L. .....Hinckley
§ Stratte, A. K. .....Pine City
§ Swensen, R. G. .....North Branch
§ Tesch, G. H. .....Elk River
* Trommald, Gladys .....Brainerd
Vik, Melvin .....Onamia
† Waller, J. D. .....Pine City
§ Whitney, R. A. .....Cambridge

FREEBORN COUNTY MEDICAL SOCIETY

Regular meetings, every two months, third Thursday
Annual meeting, December
Number of Members: 29

President
Demo, R. A. .....Albert Lea

Secretary
Steiner, L. E. .....Albert Lea

§ Barr, L. C. .....Albert Lea
Burns, Catherine .....Albert Lea
§ Butturff, C. R. .....Freeborn
§† Calhoun, F. W. .....Albert Lea
§ Demo, R. A. .....Albert Lea
§ Donovan, D. L. .....Albert Lea
§ Egge, S. G. .....Albert Lea
§ Erdal, O. A. .....Albert Lea
§ Folken, F. G. .....Albert Lea
† Freeman, J. P. .....Glenville
Freligh, W. P. .....Albert Lea
† Gullixson, A. .....Longmont, Colo.
§ Hansen, T. M. .....Albert Lea
Kaasa, L. J. .....St. Peter
† Kamp, B. A. .....Albert Lea
† Leopard, B. A. ..Brownsville, Texas
Miller, Samuel .....Albert Lea
§ Neel, Harry B. .....Albert Lea
§ Nelson, C. E. .....Albert Lea
Nesheim, M. O. .....Emmons
§ Palmer, C. F. .....Albert Lea
† Palmer, W. L. .....Albert Lea
† Palmerton, E. S. .....Minneapolis
§ Person, J. P. .....Albert Lea
§ Prins, L. R. .....Albert Lea
Schmidt, R. F. .....Alden
§† Schultz, J. A. .....Albert Lea
§ Steiner. L. E. .....Albert Lea
§ Whitson, S. A. .....Albert Lea

GOODHUE COUNTY MEDICAL SOCIETY

Regular meeting date, none
Annual meeting, December
Number of Members: 29

President
Larson, Oliver E. H. ....Zumbrota

Secretary
Hartnagel, G. F. .....Red Wing

Aanes, A. M. .....Red Wing
§ Akins, W. M. .....Red Wing
§ Anderson, S. H. .....Red Wing
§ Bagby, G. W. .....Rochester
§ Boswell, J. T. .....Wanamingo
§ Brusegard, J. F. .....Red Wing
§ Claydon, H. F. .....Red Wing
§ Dovenmuehle, R. H. .....Hastings
Flom, M. G. .....Zumbrota
§ Graves, R. B. .....Red Wing
§ Halvorson, J. W. .....Goodhue
§ Hartnagel, G. F. .....Red Wing
§ Hawley, G. M. B., II. ..Red Wing
§ Hedin, R. F. .....Red Wing
Hofmann, G. N. .....Cannon Falls
† Johnson, A. E. .....Minneapolis
† Jones, A. W. .....Red Wing
§ Juers, E. H. .....Red Wing
§ Kimmel, G. C. .....Red Wing
§ Larson, O. E. H. .....Zumbrota
§ Liffrig, W. W. .....Red Wing
§ McGuigan, H. T. .....Red Wing
§ Miller, W. R. .....Red Wing
Pfuetze, K. H. .....Chicago, Ill
Reitmann, J. H. .....Sandstone
§ Sherman, R. V. .....Red Wing
† Smith, M. W. .....Red Wing
§ Steffens, L. A. .....Red Wing
Williams, M. R. .....Cannon Falls

HENNEPIN COUNTY MEDICAL SOCIETY

Regular meetings, first Monday of each month
Annual meeting, October, first Monday
Number of Members: 859

President
Erickson, R. F. .....Minneapolis

Secretary
Aling, C. A. .....Minneapolis

Executive Secretary
Cook, Thomas P. .....Minneapolis

§ Aagaard, George N., Jr..Minneapolis
Abramson, Milton .....Minneapolis
Anderson, A. S. .....Minneapolis
Adams, F. H. .....Minneapolis
† Adkins, C. D. .....Minneapolis
Agustsson, Heidar .....Minneapolis
§ Ahern, E. E. .....Minneapolis
Alexander, H. A. .....Minneapolis
Alger, E. W. .....Minneapolis
§ Aling, Chas. A. .....Minneapolis
§ Altnow, Hugo O. .....Minneapolis
§ Andersen, S. C. .....Minneapolis
§ Anderson, D. D. .....Minneapolis
Anderson, D. M. ..Fargo, No. Dak.
§ Anderson, E. D. .....Minneapolis
§ Anderson, E. R. .....Minneapolis
§‡ Anderson, F. J. .....
Ft. Leavenworth, Kan.
§ Anderson, K. W. .....Minneapolis
§ Anderson, U. S. .....Minneapolis
Anderson, Wm. H. .....Minneapolis
Anderson, Wm. T. .....Minneapolis
Andreassen, E. C. .....Saint Paul
§ Andresen, K. D'A .....Minneapolis
§ Andrews, R. S. .....Minneapolis
Ankner, F. J. .....Minneapolis
§ Arey, Stuart L. .....Minneapolis
§ Arlander, C. E. .....Minneapolis
§ Arling, L. S. .....Minneapolis
Arnold, Anna W. .....Minneapoils
* Arnold, D. C. .....Minneapolis
§ Arvidson, C. G. .....Minneapolis
§† Aune, Martin .....Minneapolis
† Aurand, Wm. H. .....Minneapolis
Baird, J. W. .....Minneapolis
§ Baken, M. P. .....Minneapolis
Baker, A. B. .....Minneapolis
Baker, A. T. .....Minneapolis
§* Baker, E. L. .....Minneapolis
† Baker, Looe .....Minneapolis

§ Baker, M. E. .....Minneapolis
§ Balkin, S. G. .....Minneapolis
Bank, H. E. .....Portland, Ore.
* Barber, J. P. .....Minneapolis
Barno, Alex .....Minneapolis
§ Barr, M. M. .....Minneapolis
Barr, R. N. .....Minneapolis
‡ Barron, J. J. ...Camp McCoy, Wis.
§ Barron, Moses .....Minneapolis
Barron, S. S. .....Minneapolis
§† Baxter, Stephen H. ....Minneapolis
§ Beach, Northrop .....Minneapolis
† Beard, A. H. .....Wayzata
† Becker, A. M. .....Minneapolis
§ Bedford, E. W. .....Minneapolis
Beirstein, Saml. .....Minneapolis
§ Beiswanger, R. H. .....Minneapolis
† Bell, E. T. .....Minneapolis
§ Bellville, T. P. .....Minneapolis
§ Belzer, M. S. .....Minneapolis
Benesh, L. A. .....Minneapolis
§† Benjamin, A. E. .....Minneapolis
§ Benjamin, E. G. .....Minneapolis
§ Benjamin, H. G. .....Minneapolis
*† Benn, F. G. .....La Mesa, Calif.
Berg, C. C. .....Excelsior
Berger, A. G. .....Minneapolis
§ Bergh, G. S. .....Minneapolis
Bergh, S. M. .....Minneapolis
§ Berkwitz, N. J. .....Minneapolis
Berman, Reuben .....Minneapolis
§ Bessesen, A. N., Jr. ....Minneapolis
§ Bessesen, D. H. .....Minneapolis
Bessesen, Wm. A. .....Minneapolis
Bieter, R. N. .....Minneapolis
Bilka, P. J. .....Minneapolis
Binder, M. R. .....Minneapolis
§ Blake, A. J. .....Hopkins
† Blake, James .....Hopkins
§ Blake, James A. .....Hopkins
§† Blake, Paul S. .....Hopkins
§ Bloedel, T. J. G. .....Osseo
§ Bloom, N. B. .....Minneapolis
§ Blumenthal, J. S. .....Minneapolis
Bockman, M. W. H. ....Minneapolis
‡‡ Bodelson, A. H. ..Pensacola, Fla.
§ Boehrer, J. J., Jr. .....Minneapolis
§ Bofenkemp, Benj. .....Minneapolis
§ Bohn, D. G. .....Minneapolis
§ Boies, L. R. .....Minneapolis
† Booth, A. E. .....Minneapolis
Borden, C. W. .....Minneapolis
Boreen, C. A. .....Minneapolis
§ Borgeson, E. J. .....Minneapolis
Borman, C. N. .....Minneapolis
§ Bowers, G. G. .....Minneapolis
Boynton, R. E. .....Minneapolis
§ Bratrud, A. F. .....Minneapolis
† Breitenbucher, R. B. ...Minneapolis
§ Brekke, Harvey J. .....Minneapolis
Brill, Alice K. .....Minneapolis
Brooks, C. N. .....Minneapolis
† Brown, E. D. .....Paynesville
Brown, Wm. D. .....Minneapolis
Brutsch, G. C. .....Minneapolis
§ Buchstein, H. F. .....Minneapolis
§ Buirge, R. E. .....Minneapolis
Bulkley, Kenneth .....Minneapolis
§ Burnham, W. H. .....Minneapolis
§ Bushard, W. J. .....Minneapolis
§ Buzzelle, L. K. .....Minneapolis

§ Cable, M. L. .....Minneapolis
§ Cabot, C. M. .....Minneapolis
§ Cabot, V. S. .....Minneapolis
Cady, L. H. .....Minneapolis
Cameron, Isabell L. ....Minneapolis
Campbell, L. M. .....Minneapolis
§ Campbell, O. J. .....Minneapolis
§ Caplan, Leslie .....Minneapolis
Card, Wm. H. .....Minneapolis
§* Cardle, A. E. .....Minneapolis
§ Carey, J. B. .....Minneapolis
Carlander, L. W., Jr. ....Minneapolis
§ Carlson, Lawrence .....Minneaposli
§ Carlson, L. T. .....Minneapolis
§ Caron, R. P. .....Minneapolis
§ Caspers, Carl G. .....Minneapolis
§ Cavanor, F. T. .....Minneapolis
§ Ceder, E. T. .....Minneapolis
§ Challman, S. A. .....Minneapolis
Chapman, C. B. .....Minneapolis
Chesley, A. J. .....Saint Paul
§ Chisholm, T. C. .....Minneapolis
Christensen, L. E. .....Minneapolis
§ Christianson, H. W. ....Minneapolis
Clarke, E. K. .....Minneapolis
§ Clay, L. B. .....Minneapolis
§ Cochrane, R. F. .....Minneapolis
Coe, John I. .....Minneapolis
§ Cohen, B. A. .....Minneapolis
Cohen, E. B. .....Minneapolis
Cohen, M. M. .....Minneapolis
§ Cohen, S. S. .....Oak Terrace
Colp, E. A. .....Minneapolis
Condit, Wm. H. .....Minneapolis
§ Cooper, J. P. .....Excelsior
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Cornica, A. D. .....Minneapolis
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Cowan, D. W. .....Minneapolis
Craig, M. Elizabeth ....Minneapolis
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Cranston, R. W. .....Minneapolis
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§ Creighton, R. H. .....Minneapolis
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§ Cundy, D. T. .....Minneapolis
† Cutts, George .....Minneapolis
Dady, E. E. .....Minneapolis
§ Dahl, E. O. .....Minneapolis
§ Dahl, J. A. .....Minneapolis
§ Daniel, D. H. .....Minneapolis
§ Dargay, C. P. .....Minneapolis
§ Davis, J. C. .....Minneapolis
§ Davis, Wm. I. .....Mound
§ Del Plaine, C. W. .....Minneapolis
Dennis, Clarence .....Minneapolis
§ Devereaux, T. J. .....Wayzata
§† Diehl, Harold S. .....Minneapolis
Diessner, H. D. .....Minneapolis
§ Dorge, R. I. .....Minneapolis
Dornblaser, H. B. .....Minneapolis
§ Dorsey, Geo. C. .....Minneapolis
Dowidat, R. W. .....Minneapolis
Doxey, G. L. .....Minneapolis
§ Doyle, L. O. .....Minneapolis
§ Drake, C. R. .....Minneapolis
§‡ Dredge, T. E...San Francisco, Calif.
§ Drill, H. E. .....Hopkins
§ Duff, Edwin R. .....Minneapolis
§ Dunlap, E. H. .....Minneapolis
§ Dupont, J. A. .....Excelsior
* Dumas, A. G. .....Minneapolis
§ Duryea, W. M. .....Minneapolis
§† Dutton, C. E. .....Minneapolis
§ Dvorak, B. A. .....Minneapolis
§ Dwan, Paul F. .....Minneapolis
§ Dworsky, S. D. .....Minneapolis
Eckles, Nylene .....Minneapolis
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§ Ehrlich, S. P. .....Minneapolis
§ Eich, M. A. .....Minneapolis
Eisenstadt, D. H. .....Minneapolis
§ Eisenstadt, Wm. S. .....Minneapolis
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§ Ellison, D. E. .....Minneapolis
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Emond, J. S. .....Farmington
§ Engelhart, P. C. .....Minneapolis
§† Englund, E. F. .....Minneapolis
§ Engstrand, O. J. .....Minneapolis
§ Erickson, C. O. .....Minneapolis
§ Erickson, L. F. .....Minneapolis
§ Erickson, R. F. .....Minneapolis
§ Ericson, R. M. .....Minneapolis
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Fahr, Geo. E. .....Minneapolis
§ Fansler, W. A. .....Minneapolis
Feeney, J. M. .....Minneapolis
Feigal, D. W. .....Wayzata
§ Feinstein, J. Y. .....Minneapolis
§ Fenger, E. P. K. .....Oak Terrace
§ Fingerman, D. L. .....Minneapolis
§ Fink, Leo Wm. .....Minneapolis
§ Fink, Walter H. .....Minneapolis
§ Fisher, Isadore I. .....Minneapolis
† Fitzgerald, D. F. .....Wayzata
§ Fieldstad, C. A. .....Minneapolis
Flagg, G. B. .....Minneapolis
§ Fleeson, Wm. H. .....Minneapolis
† Fleming, A. S. .....Minneapolis
Fleming, D. S. .....Minneapolis
Fliehr, R. R. .....Minneapolis
Flink, E. B. .....Minneapolis
‡ Floersch, A. J. .....Seattle, Wash.
§ Foker, L. W. .....Minneapolis
§ Folsom, L. B. .....Minneapolis
§ Ford, Wm. H. .....Minneapolis
§ Foster, O. W. .....Minneapolis
§ Fowler, L. H. .....Minneapolis
§ Fox, James R. .....Minneapolis
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Frear, Rosemary R. .....Minneapolis
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§* Fredlund, M. L. .....Minneapolis
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Freeman, D. W. .....Minneapolis
§ French, Lyle A. .....Minneapolis
§ Fried, Louis A. .....Minneapolis
§ Friedell, Aaron .....Minneapolis
§ Friedman, Harry S. ....Minneapolis
Friedman, Jack .....Minneapolis
‡ Friend, Chas. A. .....
Ft. Leonard Wood, Mo.
Frisch, D. C. .....Minneapolis
§ Frost, J. B. .....Minneapolis
§ Frost, R. H. .....Oak Terrace
Frykman, H. M. .....Minneapolis
Fuller, Alice H. .....Minneapolis
§ Funk, Victor K. .....Oak Terrace
Furman, Lucie C. .....Minneapolis
† Galligan, Margaret, M.D. .....Minneapolis
§ Galloway, J. B. .....Minneapolis
§ Gammell, J. H. .....Minneapolis
Garske, G. L. .....Minneapolis
Garten, J. L. .....Minneapolis
§ Gaviser, David .....Minneapolis
§ Gibbs, Robert W. .....Minneapolis
§ Giebenhain, J. N. .....Minneapolis
§ Giebink, R. R. ....Fargo, No. Dak.
§ Giere, J. C. .....Minneapolis
§ Giere, R. W. .....Minneapolis
† Giessler, P. W. .....Minneapolis
Gilbert, M. G. .....Minneapolis
Gingold, B. A. .....Minneapolis
Girvin, R. B. .....Minneapolis
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§ Goldman, T. I. .....Minneapolis
§ Goldner, M. Z. .....Minneapolis
§ Good, H. D. .....Minneapolis
Gordon, P. E. .....Minneapolis
Gordon, S. S. .....Minneapolis
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§ Gratzek, F. R. E. .....Minneapolis
§ Grave, Floyd .....Minneapolis
Gray, Royal C. .....Minneapolis
Green, R. A. .....Minneapolis
§ Greenberg, A. J. .....Minneapolis
Greenfield, Irving .....Minneapolis
† Greisheimer, Esther M. .....
Philadelphia, Pa.
Grimes, Marian .....Minneapolis
§ Gronvall, P. R. .....Minneapolis
§ Grotting, J. K. .....Minneapolis
§ Gunlaugson, F. G. .....Minneapolis
§ Gushurst, E. G. .....Minneapolis
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Haberer, Helen R. .....Minneapolis
Hagen, Paul S. .....Saint Paul
§ Hagen, W. S. .....Minneapolis
† Haggard, G. D. .....Minneapolis
§ Hall, A. M. .....Minneapolis
§ Hall, H. B. .....Minneapolis
§ Hall, W. H. .....Minneapolis
Hallberg, C. A. .....Minneapolis
§ Hannah, H. B. .....Minneapolis
§ Hansen, C. O. .....Minneapolis
§ Hansen, E. W. .....Minneapolis
Hansen, O. S. .....Minneapolis
Hansen, R. M. .....Minneapolis
§ Hanson, H. J. .....Minneapolis
Hanson, H. V. .....Minneapolis
§ Hanson, M. B. .....Minneapolis
§ Hanson, Wm. A. H. .....Minneapolis
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Harris, L. D. .....Minneapolis
§* Hart, Vernon L. .....Minneapolis
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† Hartzell, Thos. B. .....Minneapolis
Hass, F. M. .....Minneapolis
§ Hastings, DeF. R. .....Minneapolis
§ Hastings, D. W. .....Minneapolis
§ Hauge, Erling T. .....Minneapolis
§ Haugen, Geo. W. .....Minneapolis
Haugen, John A. .....Minneapolis
Hauser, G. W. .....Minneapolis
Havel, Robert J. .....Minneapolis
§ Haven, Walter K. .....Minneapolis
§ Hawkinson, R. P. .....Minneapolis
§ Hayes, James M. .....Minneapolis
§ Hays, Albert T. .....Minneapolis
§ Head, Douglas P. .....Minneapolis
§ Hebbel, Robert .....Minneapolis
† Hedback, Axel A. .....Minneapolis
Heim, Russell R. .....Minneapolis
Heisler, J. J. .....Minneapolis
Heller, Ben I. .....Minneapolis
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§ Henrikson, E. C. .....Minneapolis
† Henry, C. E. .....Kirksville, Mo.
Henry, M. O. .....Minneapolis
Herbert, W. L. .....Minneapolis
Hermann, H. W. .....Minneapolis
Hesdorffer, M. B. .....Minneapolis
§† Higgins, J. H. .....Minneapolis
§ Hill, Earl .....Minneapolis
Hill, Elmer M. .....Minneapolis
§† Hillis, S. J. .....East Bradenton, Fla.
Hinckley, R. G. .....Minneapolis
§ Hirshfield, F. R. .....Minneapolis
† Hitchcock, C. R. .....Minneapolis
† Hoaglund, A. W. .Los Angeles, Calif.
Hoffbauer, F. W. .....Minneapolis
§ Hoffert, H. E. .....Minneapolis
§ Hoffman, R. A. .....Minneapolis
§ Hoffman, W. L. .....Minneapolis
§ Holmberg, C. J. .....Minneapolis
§ Holzapfel, F. C. .....Minneapolis
Horns, H. L. .....Minneapolis
§ Horns, R. C. .....Minneapolis
† Houkom, Bjarne .....
Luskoto, T.T.E. Africa
Hovland, M. L. .....Minneapolis
§ Howard, S. E. .....Minneapolis

Hudson, George E. .....Minneapolis
§ Huenekens, E. J. .....Minneapolis
§†Hultkrans, J. C. .....Minneapolis
§ Hultkrans, R. E. .....Minneapolis
† Hurd, Annah .....Minneapolis
‡ Hutchinson, C. J., So. Boston, Mass.
Hutchinson, D. W. .....Oak Terrace
§ Hymes, Chas. .....Minneapolis
† Hynes, John E. .....Minneapolis
§ Idstrom, L. G. .....Minneapolis
Ingalls, Edgar G., Jr. ..Minneapolis
Irvine, H. G. .....Minneapolis
§ Iverson, R. M. .....Minneapolis
§ Jacobson, W. E. .....Minneapolis
§ James, E. M. .....Saint Paul
§ Jensen, H. C. .....Minneapolis
§†Jensen, M. J. .....Minneapolis
§ Jensen, N. K. .....Minneapolis
Jensen, R. A. .....Minneapolis
Jerome, Bourne .....Minneapolis
§ Johnson, A. B. .....Minneapolis
§ Johnson, A. E. .....Minneapolis
§ Johnson, E. W. .....Minneapolis
§ Johnson, H. A. .....Minneapolis
§ Johnson, J. A. .....Minneapolis
§ Johnson, J. W. .....Minneapolis
Johnson, Julius .....Minneapolis
§ Johnson, M. R. .....Minneapolis
*†Johnson, N. A. .....Minneapolis
Johnson, N. P. .....Minneapolis
§ Johnson, N. T. .....Minneapolis
Johnson, Reinald G. ....Minneapolis
§ Johnson, Reuben A. ....Minneapolis
§ Johnson, Robert E. .....Minneapolis
Johnson, Y. T. .....Minneapolis
§†Jones, H. W., Jr. .....Minneapolis
§ Jones, W. R. .....Minneapolis
Josewich, Alexander ....Minneapolis
§ Judd, W. H. ....Washington, D. C.
§ Jurdy, M. J. .....Minneapolis
§ Kalin, O. T. .....Minneapolis
§ Kaplan, J. J. .....Minneapolis
§ Karleen, C. I. .....Minneapolis
Karlstrom, A. E. .....Minneapolis
§ Kaufman, H. J. .....Minneapolis
§ Kelby, G. M. .....Minneapolis
§ Kelly, J. P. .....Minneapolis
§ Kennedy, C. C. .....Minneapolis
† Kennedy, Jane F. .....Minneapolis
§ Kerkhof, A. C. .....Minneapolis
Kertesz, Geza, J. V. ....Minneapolis
Kiesler, Frank, Jr. .....Minneapolis
† King, E. A. .....Minneapolis
King, F. W. .....Oak Terrace
§ Kinsella, T. J. .....Minneapolis
§ Kistler, A. J. .....Minneapolis
§ Knapp, M. E. .....Minneapolis
§ Knight, R. T. .....Minneapolis
Knight, R. R. .....Minneapolis
Knudsen, Helen L. .....Minneapolis
§ Koepcke, G. M. .....Minneapolis
§ Koller, H. M. .....Minneapolis
Koller, L. R. .....Minneapolis
Korchik, J. P. .....Minneapolis
Kottke, F. J. .....Minneapolis
§ Koucky, R. W. .....Minneapolis
§ Kremen, A. J. .....Minneapolis
§ Kucera, F. J. .....Hopkins
§ Kucera, Wm. J. .....Minneapolis
LaBree, J. W. .....Minneapolis
§ LaGaard, S. M. .....Minneapolis
Lajoie, J. M. .....Minneapolis
§ Lang, L. A. .....Minneapolis
§ Lapierre, A. P. .....Minneapolis
Lapierre, J. T. .....Minneapolis
§ Larsen, F. W. .....Minneapolis
§ Larson, C. M. .....Minneapolis
§ Larson, L. M. .....Minneapolis
§ Larson, Leonard M. ....Oak Terrace
§ Larson, P. N. .....Minneapolis
Larson, R. H. .....Anoka
§ LaVake, R. T. .....Minneapolis
§ Law, S. G. .....Minneapolis
§ Laymon, C. W. .....Minneapolis
† Lazar, H. L. .....Excelsior
† Leavitt, H. H. .....Phoenix, Ariz.
Lebowske, J. A. .....Minneapolis
§ Lecklitner, M. D. .....Minneapolis
§ Leemhuis, A. J. .....Minneapolis
§ Leland, H. R. .....Minneapolis
§ Lengby, F. A. .....Minneapolis
§ Lenz, Otto A. .....Minneapolis
§ Leonard, L. J. .....Minneapolis
§ Leonard, Saml. .....Minneapolis
Lerner, A. R. .....Minneapolis
Lewis, F. J. .....Minneapolis
Lillehei, E. J. .....Robbinsdale
‡ Lind, C. J., Jr. .....
Ft. Sam Houston, Texas
Lind, Carl J. .....Minneapolis
Lindberg, A. C. .....Minneapolis
§ Lindberg, V. L. .....Minneapolis
† Lindberg, W. R. .....Minneapolis
§ Lindgren, R. C. .....Minneapolis
§ Lindquist, R. H. .....Minneapolis
§ Linner, Gunnar .....Minneapolis
§ Linner, Henry P. .....Minneapolis
§†Linner, John H. .....Minneapolis
Linner, Paul W. .....Minneapolis
Lippman, E. S. .....Minneapolis
§ Lipschultz, Oscar .....Minneapolis
§ Litchfield, J. T. .....Minneapolis
Litman, A. B. .....Minneapolis
§ Lofsness, S. V. .....Minneapolis
§ Logefeil, R. C. O. .....Minneapolis
§ Loomis, E. A. .....Minneapolis
§ Lott, F. H. .....Minneapolis
Lovett, Beatrice R. .....Oak Terrace
Lowry, Elizabeth C. .....Minneapolis
Lowry, Thomas .....Minneapolis
Lueck, W. W. .....Minneapolis
§ Lufkin, N. H. .....Minneapolis
Lundberg, Ruth I. .....Minneapolis
Lundblad, R. A. .....Minneapolis
Lundblad, S. W. .....Minneapolis
§ Lundgren, A. C. .....Minneapolis
§ Lundquist, E. F. .....Minneapolis
Lundquist, V. J. P. ....Minneapolis
† Lynch, M. J. .....Minneapolis
Lysne, Henry .....Minneapolis
§ Lysne, Myron .....Minneapolis
† MacDonald, A. E. .....Minneapolis
§ MacDonald, D. A. .....Minneapolis
§ Mach, Frank B. .....Minneapolis
§ MacKinnon, D. C. .....Minneapolis
† Macnie, John S. .....Minneapolis
§ Maeder, E. C. .....Minneapolis
§ Maland, C. O. .....Minneapolis
§†Maloney, Wm. F. .....Oak Terrace
§ Mankey, J. C. .....Minneapolis
§*Mariette, E. S. .....Oak Terrace
§ Marking, G. H. .....Minneapolis
§‡Martin, Geo. R. .Camp McCoy, Wis.
Martinson, C. J. .....Wayzata
Martinson, E. J. .....Wayzata
† Matcham, G. R. .....Saint Paul
§ Mattill, P. M. .....Oak Terrace
§ Mattson, H. A. N. .....Minneapolis
§ Maxeiner, S. R. .....Minneapolis
§ McCaffrey, F. J. .....Minneapolis
McCann, E. J. .....Minneapolis
McCannel, M. A. .....Minneapolis
McCarthy, Donald .....Saint Paul
McCartney, J. S. .....Minneapolis
§§ McCormick, D. P. .....Minneapolis
‡ McCrimmon, H. P. ..Cleveland, Ohio
† McDaniel, Orianna .....Minneapolis
§ McFarland, A. H. .....Minneapolis
§ McGandy, R. F. .....Minneapolis
§ McGeary, G. E. .....Minneapolis
§§ McInerny, M. W. .....Minneapolis
McKelvey, J. L. .....Minneapolis
§ McKenzie, C. H. .....Minneapolis
§ McKinlay, C. A. .....Minneapolis
§ McKinney, F. S. .....Minneapolis
§ McLaughlin, B. H. .....Minneapolis
§ McMurtrie, Wm. B. ....Minneapolis
§ McPheeters, H. O. .....Minneapolis
† McQuarrie, Irvine .....Minneapolis
§ Meller, R. L. .....Minneapolis
§ Merkert, C. E. .....Minneapolis
§ Merkert, G. E. .....Minneapolis
† Merrick, C. T. .....Saint Paul
† Merrill, Elizabeth .....Minneapolis
§ Meyer, A. J. .....Minneapolis
§ Meyer, Ette L. .....Minneapolis
Michael, J. C. .....Minneapolis
§ Michel, H. H. .....Minneapolis
§ Michelson, H. E. .....Minneapolis
† Mickelsen, Emma F. ....Minneapolis
§ Miller, A. L. .....Minneapolis
§ Miller, H. E. .....Minneapolis
§ Miller, Hugo E. .....Minneapolis
§ Miller, J. C. .....Minneapolis
§ Milton, J. S. .....Minneapolis
§ Minsky, A. A. .....Minneapolis
§ Mitchell, B. D. .....Minneapolis
Mitchell, E. C. .....Minneapolis
§ Mitchell, M. T. .....Minneapolis
§ Mixer, Harry W. .....Minneapolis
§ Moe, John H. .....Minneapolis
§ Moehn, John T. .....Minneapolis
§ Moen, J. K., Jr. .....Minneapolis
† Monahan, Elizabeth S. ..Minneapolis
§ Monson, E. M. .....Minneapolis
Moore, I. H. .....Minneapolis
Moorhead, Marie .....Minneapolis
§ Moos, Daniel J. .....Minneapolis
† Moren, Edward .....Minneapolis
§ Mork, A. H. .....Anoka
§ Mork, Frank E. .....Anoka
Morrison, C. J. .....Minneapolis
Morse, R. W. .....Minneapolis
§‡Mulholland, Wm. M. .....
Camp Atterbury, Ind.
Murphy, E. P. .....Minneapolis
§ Musty, N. J. .....Minneapolis
Myers, J. A. .....Minneapolis
§ Myhre, James A. .....Minneapolis
§ Naslund, A. W. .....Minneapolis
§ Neal, Joe M. .....Minneapolis
§ Neary, R. P. .....Minneapolis
Nelson, C. B. .....Minneapolis
§ Nelson, E. N. .....Minneapolis
§ Nelson, Harvey .....Minneapolis
† Nelson, H. S. ....Los Angeles, Cal.
§ Nelson, L. S. .....Minneapolis
§ Nelson, M. C. .....Minneapolis
§ Nelson, O. L. N. .....Minneapolis
§ Nelson, W. I. .....Minneapolis
§ Nesbitt, Saml. .....Minneapolis
§ Nesset, L. B. .....Minneapolis
§ Nesset, Wm. D. .....Minneapolis
Noonan, Wm. J. .....Minneapolis
Noran, A. S. N. .....Minneapolis
§ Noran, H. H. .....Minneapolis
§ Nord, R. E. .....Minneapolis
§ Nordin, G. T. .....Minneapolis
§ Nordland, Martin, Jr. ...Minneapolis
§ Nordland, Martin .....Minneapolis
§†Noth, H. W. .....Minneapolis
§ Nydahl, M. J. .....Minneapolis
§ Nylander, E. G. .....Minneapolis
† Nystrom, Ruth G. .....
Malibu Beach, Calif.
O'Donnell, J. E. .....Minneapolis
§†Oberg, Carl M. .....Minneapolis
§ Olsen, Edw. G. .....Minneapolis
§ Olson, Alton C. .....Minneapolis
§†Olson, B. G. .....Minneapolis
Olson, C. K. .....Minneapolis
Olson, J. W. .....Minneapolis
† Olson, Olof A. .....Minneapolis
§ Oppen, E. G. .....Minneapolis
*†Owre, Oscar .....Minneapolis
§ Palen, B. J. .....Minneapolis
Papermaster, T. C. .....Minneapolis
§ Peluso, C. R. .....Minneapolis
§ Peppard, Thos. A. .....Minneapolis
§ Perlman, E. C. .....Minneapolis
§ Petersen, G. L. .....Minneapolis
§†Petersen, John R. .....Minneapolis
Petersen, P. C. .....Minneapolis
Peterson, Wm. E. .....Minneapolis
§ Peterson, H. W. .....Minneapolis
§ Peterson, L. J. .....Reno, Nevada
Peterson, N. P. .....Minneapolis
Peterson, O. H. .....Minneapolis
§ Peterson, O. H., Jr. ...Minneapolis
§ Peterson, P. E. .....Minneapolis
§ Peterson, W. C. .....Minneapolis
Peterson, W. Henry ....Minneapolis
§ Petit, J. V. .....Minneapolis
§ Petit Leon J. .....Minneapolis
§ Pewters, J. T. .....Minneapolis
§ Peyton, Wm. T. .....Minneapolis
§ Pfunder, M. C. .....Minneapolis
§ Phelps, K. A. .....Minneapolis
§ Plass, H. F. R. .....Minneapolis
§ †Platou, E. S. .....Minneapolis
§ Pleissner, K. W. .....St. Louis Park
§ Plimpton, N. C., Jr. .....Minneapolis
§ Pohl, John F. M. .....Minneapolis
§ Pollard, D. W. .....Minneapolis
§ Pollock, D. K. .....Minneapolis
§ Polzak, J. A. .....Minneapolis
Poppe, F. H. .....Minneapolis
Potter, R. B. .....Minneapolis
§ Pratt, F. J., Jr. .....Minneapolos
† Pratt, F. J., Sr. .....Minneapolis
Preine, I. A. .....Minneapolis
§ Preston, Paul James ....Minneapolis
§ Priest, Robt. E. .....Minneapolis
§†Prim, Jos. A. .....Minneapolis
§ Proffitt, Wm. E. .....Minneapolis
§ Proshek, C. E. .....Minneapolis
§ Ouello, R. O. B. .....Minneapolis
§†Quist, Henry W. .....Minneapolis
§ Quist, H. W., Jr. .....Minneapolis
§ Ranson, H. R. .....Osseo
§ Reader, D. R. .....Minneapolis
§ Regan, J. J. .....Minneapolis
§ Regnier, Edw. A. .....Minneapolis
Reid, Lewis M. .....Excelsior
§ Reif, H. A. .....Minneapolis
§ Reiley, R. E. .....Minneapolis
§ Resch, J. A. .....Minneapolis
§ Rice, Carl O. .....Minneapolis
Rice, Frank B. .....Minneapolis
Rice, Fred A. .....Minneapolis
Richdorf, L. F. .....Minneapolis
§ Rieke, W. W. .....Wayzata
Rigler, Leo G. .....Minneapolis
Riordan, Elsie M. .....Minneapolis
§ Risch, R. E. .....Minneapolis
Rizer, D. K. .....Minneapolis
Rizer, R. I. .....Minneapolis
Robb, Edwin F. .....Minneapolis
§ Robbins, O. F. .....Minneapolis
§ Roberts, L. J. .....Minneapolis
§ Roberts, S. W. .....Minneapolis
§†Roberts, Wm. B. .....Minneapolis
Rocknem, R. E. .....Minneapolis
§ Rockwell, C. V. .....Minneapolis
§†Rodda, Fredk. C. .....Minneapolis

§ Rodgers, R. S. .....Minneapolis
§ Rosendahl, F. G. .....Minneapolis
§ Rosenfield, A. B. .....Minneapolis
§ Rosenow, J. H. .....Minneapolis
§ Rosenwald, R. M. .....Minneapolis
§ Ross, A. J. .....Minneapolis
§ Rossen, R. X. .....Hastings
§ Rucker, Wm. H. .....Minneapolis
Rud, Norman E. .....Minneapolis
Rudell, G. L. .....Minneapolis
§ Russeth, A. N. .....Minneapolis
§ Rusten, E. M. .....Minneapolis
§ Rydburg, W. C. .....Minneapolis
§‡St. Cyr, Harry W., Jr. .....
Camp McCoy, Wis.
§ St. Cyr, K. J. .....Robbinsdale
§ Sadler, Wm. P., Jr. ....Minneapolis
§ Saliterman, B. I. .....Minneapolis
§ Samuelson, Saml. .....Minneapolis
§ Sandt, Karl E. .....Minneapolis
§ Sanford, R. A. .....Minneapolis
§ Sawatzky, Wm. A. ....Minneapolis
§‡Sborov, A. M....Fort McClellan, Ala.
§ Schaaf, F. H. K. .....Minneapolis
† Schaar, F. E. .....Minneapolis
§ Schaefer, W. G. .....Minneapolis
† Scheldrup, N. H. .....Minneapolis
§ Scherer, L. R. .....Minneapolis
§ Scherling, S. S. .....Minneapolis
§ Schiele, B. C. .....Minneapolis
§ Schmidt, G. F. .....Minneapolis
† Schmitt, S. C. .....San Diego, Cal.
*†Schneider, J. P. .....Minneapolis
† Schneider, R. A. ..New York, N. Y.
§ Schottler, M. E. .....Minneapolis
§ Schroeder, A. J. .....Minneapolis
§ Schultz, J. H. .....Minneapolis
Schultz, P. J. .....Minneapolis
§ Schulze, Wm. M. .....Minneapolis
§ Schwartz, V. J. .....Minneapolis
*†Schwyzer, Gustav .....Minneapolis
† Scott, F. H. .....Minneapolis
§ Scott, H. G. .....Minneapolis
§ Seaberg, J. A. .....Minneapolis
§†Seashore, Gilbert .....Minneapolis
† Segal, M. A. .....Minneapolis
§ Seifert, M. H. .....Excelsior
§ Seljeskog, S. R. .....Minneapolis
§ Semsch, R. D. .....Minneapolis
§ Shandorf, J. F. .....Minneapolis
Shaperman, Eva P. ....Minneapolis
Shapiro, M. J. .....Minneapolis
Shapiro, S. K. .....Minneapolis
Sharp, D. V. .....Minneapolis
Shaw, H. A. .....Minneapolis
§ Shea, A. W. .....Minneapolis
Sher, Lewis .....Minneapolis
§ Sherman, L. F. .....Minneapolis
§ Shronts, J. F. .....Minneapolis
§ Siegmann, Wm. C. .....Minneapolis
Silver, J. D. .....Minneapolis
§†Simons, J. H. .....Minneapolis
§ Simonson, D. B. .....Minneapolis
Simpson, E. De W. .....Minneapolis
Sinykin, M. B. .....Minneapolis
Siperstein, D. M. .....Minneapolis
§ Sisterman, T. J. .....Minneapolis

† Sivertsen, Andrew .....Minneapolis
§†Sivertsen, Ivar .....Minneapolis
§ Skjold, A. C. .....Minneapolis
Smiley, J. T. .....Minneapolis
§ Smisek, F. M. E. .....Minneapolis
Smith, Adam M. .....Minneapolis
§ Smith, Archie M. .....Minneapolis
§ Smith, Baxter A., Jr....Minneapolis
§ Smith, G. G. .....Minneapolis
Smith, Homer R. .....Minneapolis
† Smith, Margaret I. .....Robbinsdale
Smith, Marie A. .....Minneapolis
§ Smith, Norman M. .....Minneapolis
§ Smith, Norvin R. .....Minneapolis
§ Smith, Theo. S. .....Minneapolis
Soderling, R. T. .....Minneapolis
§ Solhaug, Saml. B. .....Minneapolis
§ Solvason, H. M. .....Minneapolis
§ Spano, Jos. P. .....Minneapolis
§ Spink, W. W. .....Minneapolis
Sponsel, K. H. .....Minneapolis
† Spratt, Chas. N. .....Minneapolis
§ Stahr, A. C. .....Hopkins
§ Stanford, C. E. .....Minneapolis
§ State, David .....Minneapolis
‡ Staub, H. P..Ft. Leonard Wood, Mo.
Stein, K. E. .....Lakeville
§ Stelter, L. A. .....Minneapolis
§‡Stennes, J. L..Camp Atterbury, Ind.
Stewart, M. J. .....Minneapolis
Stewart, Rolla I. .....Minneapolis
‡ Stiegler, F. S..Nurenberg, Germany
§ Stoesser, A. V. .....Minneapolis
† Stomel, Joseph ..Los Angeles, Calif.
§ Stone, S. P. .....Minneapolis
† Strachauer, A. C. .....Minneapolis
§ Strickler, J. H. .....Minneapolis
§ Strom, G. W. .....Minneapolis
Stromgren, D. T. .....Minneapolis
§ Stromme, Wm. B. .....Minneapolis
§ Sturges, R. L. .....Minneapolis
§†Subby, Walter .....Minneapolis
Sukov, Marvin .....Minneapolis
§ Swanson, R. E. .....Minneapolis
† Swanson, V. F..Los Angeles, Calif.
§ Sweetser, H. B., Jr. ....Minneapolis
§ Sweetser, T. H. .....Minneapolis
† Swetzer, S. E. .....Minneapolis
§†Swendseen, C. G. .....Minneapolis

§ Tangen, G. M. .....Minneapolis
Taylor, Jos. H. .....Minneapolis
§ Tenner, R. J. .....Minneapolis
§ Terry, Wm. S. .....Minneapolis
§ Thomas, Geo. E. .....Minneapolis
† Thomas, Geo. H. .....Minneapolis
Thomes, A. Boyd .....Minneapolis
§ Thompson, W. H. .....Minneapolis
Thomson, J. M. .....Minneapolis
§ Thorson, S. V. .....Minneapolis
§ Thysell, D. M. .....Minneapolis
§†Tingdale, A. C. .....Minneapolis
§ Tinkham, R. G. .....Minneapolis
Titrud, L. A. .....Minneapolis
§ Tobin, John D. .....Minneapolis
Todd, Romona L. .....Minneapolis
§ Trach, B. B. .....Minneapolis

§ Trow, James E. .....Minneapolis
§ Trow, Wm. H. .....Minneapolis
§ Trueman, H. S. .....Minneapolis
§ Tudor, R. B. .....Minneapolis
§†Tunstead, H. J. .....Minneapolis
† Turnacliff, D. D. .....Saint Paul
† Twomey, J. E. .....Minneapolis
§ Ude, Walter H. .....Minneapolis
§†Ulrich, Henry L. .....Minneapolis
§ Ulvestad, H. S. .....Minneapolis
§ Undine, C. A. .....Minneapolis
Vik, Arthur E. .....Minneapolis

§ Wahlquist, H. F. .....Minneapolis
§ Waldron, C. W. .....Minneapolis
§ Wall, Carl R. .....Minneapolis
§ Walsh, Francis M. .....Minneapolis
§ Walsh, Wm. T. .....Minneapolis
Wangensteen, O. H. .....Minneapolis
Ward, Percy A. .....Minneapolis
§ Watson, C. G. .....Minneapolis
Watson, C. J. .....Minneapolis
† Weaver, M. Mc. .....
Vancouver, B. C.
§ Webb, Edgar A. .....Minneapolis
§ Webb, Roscoe C. .....Minneapolis
§ Webber, R. J. .....Hopkins
§ Weisberg, R. J. .....Minneapolis
§ Wendland, J. P. .....Minneapolis
Werner, George .....Minneapolis
† West, Catherine C. .....Minneapolis
‡ Westphal, K. F. .....Portland, Ore.
§†Wethall, Anton G. .....Minneapolis
Wetherby, Macnider .....Minneapolis
§ Weum, T. W. .....Minneapolis
§ White, A. A. .....Minneapolis
§ White, S. M. .....Minneapolis
§ White, W. D. .....Minneapolis
§ Whitesell, L. A. .....Minneapolis
§ Widen, W. F. .....Minneapolis
§ Wilcox, A. E. .....Minneapolis
† Wilder, K. W. .....Minneapolis
§ Wilder, R. L. .....Minneapolis
§ Wilder, R. M., Jr. ....Minneapolis
§ Wilken, P. A. .....Minneapolis
§†Willcutt, C. E. .....Phoenix, Ariz.
† Williams, Robert .....Carthage, Ill.
§ Wilson, R. H. .....Minneapolis
Winther, Nora M. C. ...Minneapolis
§ Wipperman, F. F. .....Minneapolis
§ Witham, Carl A. .....Minneapolis
Wittich, F. W. .....Minneapolis
§ Wohlrabe, A. A. .....Minneapolis
Wohlrabe, A. C. .....Minneapolis
Wolf, Alfred H. .....Minneapolis
† Wood, Robert A. .....Minneapolis
§ Worden, R. E. .....Columbus, Ohio
§ Wright, Wale S. .....Minneapolis
Wright, Wm. S. .....Minneapolis
Wyatt, O. S. .....Minneapolis
Wynne, H. M. N. .....Minneapolis

§ Ylvisaker, R. S. .....Minneapolis
§ Yoerg, Otto W. .....Minneapolis

§ Zaworski, Leo A. .....Minneapolis
Zierold, A. A. .....Minneapolis
§ Zinter, F. A. .....Minneapolis
§ Ziskin, Thos. .....Minneapolis

KANDIYOHI-SWIFT-MEEKER COUNTY MEDICAL SOCIETY

Regular meetings, third Thursday of each month
Annual meeting, December
Number of Members: 45

President
Proeschel, R. K. .....Willmar

Secretary
Jacobs, D. L. .....Willmar

Anderson, R. E. .....Willmar
Arnson, J. M. .....Benson
Bosland, H. G. .....Willmar
Chadbourn, W. A. .....Litchfield
† Daignault, Oscar .....Benson
† Danielson, K. A. .....Litchfield
Danielson, Lennox .....Litchfield
Dille, D. E. .....Litchfield
Kaufman, E. J. .....Appleton
Eberley, T. S. .....Benson
Fisher, J. M. .....Willmar
Frederickson, Alice C. .....Willmar
Frederickson, Guy U. Y. ...Willmar
Frisch, F. P. .....Willmar
† Frost, E. H. .....Willmar
Giere, S. W. .....Benson
Gilman, L. C. .....Willmar
Griffin, R. P. .....Benson
Guy, Jack A. .....New London
Herbst, R. F. .....Willmar
Hinz, W. E. .....Willmar
Hodapp, R. J. .....Willmar
Hodapp, R. V. .....Willmar
Jacobs, D. L. .....Willmar
† Jacobs, J. C. .....Willmar
† Johnson, Hans .....Kerkhoven
Kelley, K. J. .....Litchfield
Lundblad, R. M. .....Clara City
Macklin, W. E., Jr. .....Willmar
McCarthy, A. M. .....Willmar
Michels, R. P. .....Willmar
Nelson, K. L. .....Balaton
O'Connor, D. C. .....Eden Valley
Ostling, B. C. .....Kerkhoven
† Penhall, F. W. .....Willmar
Peterson, W. E. .....Willmar
Porter, O. M. .....Willmar
Proeschel, R. K. .....Willmar
Rygh, H. N. .....Atwater
Sellers, G. K. .....Dassel
Solsem, F. N. S. .....Spicer
Sutherland, W. H. .....Benson
Verby, J. E., Jr. .....Litchfield
Wilmot, C. A. .....Litchfield
Wilmot, H. E. .....Litchfield

LYON-LINCOLN COUNTY MEDICAL SOCIETY

Regular meetings, last Tuesday of each month
Annual meeting, last Tuesday of October
Number of Members: 28

President
Ferguson, W. C. .....Walnut Grove

Secretary
Purves, G. H. .....Hendricks

Akester, Ward .....Fergus Falls
‡ Benson, L. M. ..Camp Rucker, Ala.
Eckdale, J. E. .....Marshall
Ferguson, W. C. .....Walnut Grove
Ford, Burton C. .....Marshall
Friedell, George .....Ivanhoe
† Gray, F. D. .....Marshall
Hedenstrom, P. C. .....Marshall
Helferty, J. K. .....
V. A. Hosp., Boise, Idaho

Hermanson, P. E.....Hendricks
Hoidale, A. D. .....Tracy
Johnson, C. Percy .....Tyler
Kreuzer, T. C. .....Marshall
Monson, L. J. .....Canby
Murphy, J. E. .....Marshall
Peterson, K. A. .....Marshall
Purves, G. H. .....Hendricks
‡ Remsberg, R. R..Camp Rucker, Ala.
† Robertson, J. B.....Minneapolis
*† Sanderson, E. T. .....Alexandria
Sether, A. F. .....Ruthton
Smith, Lloyd A. .....Tyler
Thompson, C. O. .....Hendricks
Vadheim, A. L. .....Tyler
Valentine, W. H. .....Tracy
Wolstan, S. D. .....Minneota
Workman, W. G. .....Tracy
Yaeger, W. W. .....Marshall

McLEOD COUNTY MEDICAL SOCIETY

Regular meeting, third Thursday of each month
Annual meeting, January
Number of Members: 24

President
Kallestad, L. L. .....Brownton

Secretary
Selmo, J. D. .....Norwood

§ Brink, D. M. .....Hutchinson
† Clement, J. B. .....Lester Prairie
§ Goss, H. C. .....Glencoe
Goss, Martha D. .....Glencoe
§ Gridley, J. W. .....Glencoe
§‡ Griebie, Grant L...Ft. Lewis, Wash.
§ Holm, H. H. .....Glencoe
§ Jensen, A. M. .....Brownton
§ Kallestad, L. L. .....Brownton
Klima, W. W. .....Stewart
Leitschuh, L. F. .....Winsted
§ Lippmann, E. W. .....Hutchinson
§ McMahon, M. J. .....Green Isle
§ Neumaier, Arthur .....Glencoe
§ Peterson, K. H. .....Hutchinson
Sahr, W. G. .....Hutchinson
Scholpp, O. W. .....Hutchinson
§ Selmo, J. D. .....Norwood
§ Sheppard, C. G. .....Hutchinson
*† Shraber, E. E. .....Watertown
§ Smith, G. R. .....Hutchinson
§ Smyth, J. J. .....Lester Prairie
§ Truesdale, C. W. .....Glencoe
§ Trutna, T. J. .....Silver Lake

MOWER COUNTY MEDICAL SOCIETY

Regular meeting, last Thursday of each month
Annual meeting, December
Number of Members: 31

President
Twiggs, L. F. .....Austin

Secretary
Rosenthal, F. H. .....Austin

§ Anderson, D. P. .....Austin
§ Anderson, H. J. .....Austin
§ Barber, T. E. .....Austin
§ Cronwell, B. J. .....Austin
Fisch, H. M. .....Austin
§ Flanagan, L. G. .....Austin
§ Grise, W. B. .....Austin
Havens, J. G. W. .....Austin
† Hegge, O. H. .....Austin
§ Hegge, R. S. .....Austin
*† Henslin, A. E. .....Cresco, Iowa
§ Hertel, G. E. .....Austin
§ Leck, P. C. .....Austin
‡ Lewis, J. S., Jr...Bremerton, Wash.
§ Lommen, P. A. .....Austin
McKenna, Elizabeth M. .....Austin
§ McKenna, J. K. .....Austin
Melzer, G. R. .....Lyle
Morse, M. P. .....Le Roy
§ Peterson, S. C. .....Austin
§ Robertson, P. A. .....Austin
Rosenthal, F. H. .....Austin
§ Sargent, E. C., Jr. .....Austin
Schneider, P. J. .....Adams
§*† Schottler, G. J. .....Dexter
§ Seery, T. M. .....Austin
§ Sheedy, C. L. .....Austin
§ Twiggs, L. F. .....Austin
§ Van Cleve, H. P. .....Austin
§ Wilson, F. C. .....Austin
§ Wright, R. R. .....Austin

NICOLLET-LE SUEUR COUNTY MEDICAL SOCIETY

Regular meeting, not scheduled
Annual meeting, December
Number of Members: 27

President
Grimes, B. P. .....St. Peter

Secretary
Wilcox, G. C. .....St. Peter

§† Aitkens, H. B. .....LeCenter
Bodaski, A. A. .....LeCenter
Branham, D. S. .....St. Peter
§ Canfield, W. W. .....St. Peter
§ Covell, W. W. .....St. Peter
§ Curtis, R. A. .....LeCenter
§ Ericson, Swan .....Le Sueur
§ Grimes, B. P. .....St. Peter
§ Hiniker, P. J. .....Le Sueur
§ Johnson, H. C. .....North Mankato
Kabrick, O. A. .....St. Peter
§ Larson, M. H. .....Nicollet
§ Lenander, M. E. .....St. Peter
§ Nilson, H. J. .....North Mankato
§ Olmanson, E. G. .....St. Peter
§ Olson, D. C. .....Gaylord
‡ Orwoll, H. S. .....Decorah, Iowa
§ Rudie, C. N. .....St. Peter
Schulberg, V. A. .....Arlington
† Sherman, A. G. .....Minneapolis
§ Sjostrom, L. E. .....St. Peter
§ Sonnesyn, N. N. .....Le Sueur
§ Strathern, C. S. .....St. Peter
§† Strathern, F. P. .....St. Peter
§ Traxler, J. F. .....Henderson
§ Wilcox, G. C. .....St. Peter
§ Wohlrabe, C. F. ....North Mankato

OLMSTED-HOUSTON-FILLMORE-DODGE COUNTY MEDICAL SOCIETY

Regular meetings, first Wednesday every odd month
Annual meeting, first Wednesday in November
Number of Members: 584

President
O'Leary, P. A. .....Rochester

Secretary
Carryer, H. M. .....Rochester

§ Achor, R. W. P. .....Rochester
§ Adams, R. C. .....Rochester
§ Adson, A. W. .....Rochester
§ Affeldt, D. E. .....Kasson
§ Ahlfs, J. J. .....Caledonia
§ Aldrich, R. A. .....Rochester
§ Allen, E. V. N. .....Rochester
† Amberg, Samuel .....Rochester
§ Andersen, H. A. .....Rochester
§ Anderson, A. D. .....Rochester
Anderson, C. D. .....Chicago, Ill.
§ Anderson, M. J. .....Rochester
§ Anderson, M. W. .....Rochester
§ Anderson, T. P. .....Rochester
§ Arata, J. E. .....Rochester
§ Atmore, W. G. .....Rochester
§ Austin, G. W. .....Memphis, Tenn.
§ Baggenstoss, A. H. .....Rochester
§ Bahn, R. C. .....Rochester
Bain, R. C. .....Rochester
§ Bair, H. L. .....Rochester
§ Baker, G. S. .....Rochester
§ Baker, H. R. .....Hayfield
§ Baker, P. L. .....Rochester
§ Baker, R. L. .....Hayfield
§† Balfour, D. C. .....Rochester
§ Balfour, W. M. .....Rochester
§ Ball, W. P. .....Rochester
§ Banner, E. A. .....Rochester
§ Bannon, W. G. .....Rochester
§ Barber, J. R. .....Rochester
§ Bargen, J. A. .....Rochester
§ Barker, N. W. .....Rochester
§ Barnes, A. R. .....Rochester
§ Bartholomew, L. G. .....Rochester
§ Baskin, R. H. .....Rochester
§ Bastron, J. A. .....Rochester
§ Bayrd, E. D. .....Rochester
§ Beahrs, O. H. .....Rochester
§ Beard, E. F. .....Rochester
Becker, S. W., Jr. .....Rochester
§ Begley, J. W. .....Rochester
§ Belding, III, H. H. .....Rochester
§ Bellegie, N. J. .....Rochester
§ Bender, L. F. .....Rochester
§ Benedict, W. H. .....Rochester
§ Benedict, Wm. L. .....Rochester
§ Bennett, H. S. .....Cleveland, Ohio
§ Bennett, W. A. .....Rochester
§ Benua, R. S. .....Rochester
§ Benz, E. J. .....Rochester
§ Berens, James .....Rochester
§ Berkman, D. M. .....Rochester
§ Berkman, I. M. .....Rochester
§ Bernatz, P. E. .....Rochester
§ Bickel, W. H. .....Rochester
Bigelow, C. E. .....Dodge Center
§ Black, B. M. .....Rochester
§ Blackburn, C. M. .....Rochester
Block, M. A. .....Rochester
§ Block, W. J., Jr. .....Rochester
† Boothby, W. M. .....Randolph Field, Texas
§ Bostwick, J. L. .....Rochester
§ Boucek, R. J. .....Rochester
§ Boyd, D. A., Jr. .....Rochester
§ Braasch, J. W. .....Rochester
§† Braasch, Wm. E. .....Rochester
§ Braceland, F. J. .....Rochester
§ Brandenburg, R. O. .....Rochester
§ Bresette, J. E. .....Rochester
§ Brickley, P. M. .....Rochester
Brindley, C. O. .....Rochester
§ Broders, A. C. .....Temple, Texas
§ Brown, H. A. .....Rochester
§ Brown, J. R. .....Rochester
§ Brown, P. W. .....Rochester
§ Brunsting, L. A. .....Rochester
§ Brzustowicz, R. J. .....Rochester
§ Buie, L. A. .....Rochester
§ Burchell, H. B. .....Rochester
‡ Burgert, E. O., Jr. Ft. Sam, Houston, Texas
§ Burgess, H. M. .....Rochester
§ Burke, E. C. .....Rochester
§ Butcher, W. A. .....Rochester
§ Butin, J. W. .....Rochester
§ Butler, D. B. .....Houston, Texas
§ Butt, H. R. .....Rochester
§ Cain, J. C. .....Rochester
§ Camp, J. D. .....Rochester
§ Campbell, D. C. .....Rochester
§ Carey, J. M. .....Rochester
§ Carlisle, J. C. .....Rochester
§ Carr, D. T. .....Rochester
§ Carroll, T. T. .....Rochester
§ Carryer, H. M. .....Rochester

Cashin, J. C. ..... Rochester
Chance, D. P. ..... Rochester
§ Childs, D. S., Jr. ..... Rochester
Chriss, J. W. ..... Rochester
§ Christensen, N. A. ..... Rochester
§ Christie, D. P. ..... Rochester
§ Christoferson, L. A. ..... Fargo, N. D.
§ Clagett, O. T. ..... Rochester
§ Clark, L. W. ..... Spring Valley
§ Clark, III, P. L. ..... Rochester
Clifton, T. A. ..... Chatfield
Cole, J. P. ..... Rochester
§ Comfort, M. W. ..... Rochester
§ Cook, J. R. ..... Rochester
§ Cooley, J. C. ..... Rochester
§ Cooper, L. S. ..... Rochester
§ Corbin, K. B. ..... Rochester
Counseller, V. S. ..... Rochester
Courtin, R. F. ..... Rochester
§ Coventry, M. B. ..... Rochester
§ Craig, W. M. ..... Rochester
§ Crenshaw, J. L., Jr. ..... Rochester
§† Crenshaw, J. L. ..... Sanford, Fla.
§ Crumpacker, E. L. ..... Rochester
Culp, O. S. ..... Rochester
§ Curtiss, R. K. ..... Rochester
§ Dahlin, D. C. ..... Rochester
§ Daly, David ..... Rochester
§ Daugherty, G. W. ..... Rochester
§ Davis, A. C. ..... Rochester
§ Davis, G. D. ..... Rochester
* Davis, I. G. ..... Rushford
§ Davis, R. E. ..... Rochester
§ Davis, R. M. ..... Marion, Ind.
§ Dearing, Wm. H., Jr. ..... Rochester
§ DeForest, R. E. ..... Rochester
§ Devine, K. D. ..... Rochester
§ DeWeerd, J. H. ..... Rochester
§ Didcoct, J. W. ..... Rochester
§ Diessner, G. R. ..... Rochester
§ Dillard, P. G., Jr. ..... Rochester
§ Dixon, C. F. ..... Rochester
Doane, J. C. ..... Rochester
§ Dockerty, M. B. ..... Rochester
§ Dodge, H. W., Jr., ... Rochester
* Dolder, F. C. ..... Eyota
Donald, T. C., Jr. ..... Rochester
§ Donoghue, F. E. ..... Rochester
§ Dornberger, G. R. ..... Rochester
§ Douglass, B. E. ..... Rochester
§ Doust, W. C. ..... Rochester
† Drake, F. A. ..... Lanesboro
† Drips, D. G. ..... Rochester
§ Dry, T. J. ..... Rochester
Duncan, D. K. ..... Rochester
§ Dunlap, R. W. ..... Rochester
§ DuShane, J. W. ..... Rochester
§ Eaton, L. M. ..... Rochester
§ Eby, L. G. ..... Rochester
§ Ede, Mitchell ..... Rochester
Edwards, J. E. ..... Rochester
§ Elkins, E. C. ..... Rochester
§ Ellis, F. H. ..... Rochester
§ Emmett, J. L. ..... Rochester
Epperson, D. P. ..... Rochester
§ Erich, J. B. ..... Rochester
§ Erickson, D. J. ..... Rochester
Esser, R. A. ..... Rochester
§ Estes, J. E. ..... Rochester
§† Eusterman, G. B. ..... Rochester
† Evarts, A. B. ..... Rochester
§ Faber, J. E. ..... Rochester
§ Falsetti, F. P. ..... Rochester
§ Faulconer, Albert, Jr. ..... Rochester
§ Faulkner, J. W. ..... Rochester
Feldman, F. M. .. Bronxville, N. Y.
§ Ferris, D. O. ..... Rochester
Figi, F. A. ..... Rochester
§ Fitzpatrick, T. B. ..... Rochester
§ Flanagan, J. R. ..... Rochester
Foss, E. L. ..... Rochester
§ Foulk, W. T. ..... Rochester
§ Frank, L. M. ..... Rochester
§ Freedman, M. A. ..... Rochester
Freeman, J. G. ..... Rochester
§ Fricke, R. E. ..... Rochester
§ Fuller, Josiah ..... Rochester
§† Gambill, C. M. ..... Rochester
§ Gambill, E. E. ..... Rochester
Gastineau, C. F. ..... Rochester
Geraci, J. E. ..... Rochester
§ Ghormley, K. O. ..... Rochester
§ Ghormley, R. K. ..... Rochester
§ Gibb, R. P. ..... Rochester
§ Giberson, R. G. ..... Rochester
§ Gibson, M. M. ..... Rochester
§† Giffin, H. Z. ..... Rochester
§ Gifford, R. W., Jr. ..... Rochester
§ Gilbert, L. W. ..... Rochester
§ Ginsberg, R. L. ..... Rochester
§ Goldstein, N. P. ..... Rochester
§ Good, C. A., Jr. ..... Rochester
§ Goodlad, J. H. ..... Rochester
§ Graham, G. G. ..... Rochester
§ Gray, H. K. ..... Rochester
Greene, L. F. ..... Rochester
§‡ Griffin, G. D. J., Jr. ..... Boswell, New Mexico
§ Griffith, E. R. ..... Rochester
§ Grindlay, J. H. ..... Rochester
§ Gross, J. B. ..... Rochester
§ Gustafson, M. B. ..... Rochester
§ Habein, H. C. ..... Rochester
§ Haddy, F. J. ..... Rochester
§ Hagedorn, A. B. ..... Rochester
§ Haines, S. F. ..... Rochester
§ Hall, B. E. ..... Rochester
§ Hallberg, O. E. ..... Rochester
§† Hallenbeck, D. F. ..... Rochester
§ Hallenbeck, G. A. ..... Rochester
Hanlon, D. G. ..... Rochester
§ Hanson, H. H. ..... Rochester
§ Hanson, N. O. ..... Rochester
‡ Hanson, S. M. ..... Sparta, Wis.
§ Harnagel, E. E. ..... Rochester
§ Harrington, S. W. ..... Rochester
§ Harris, L. E. ..... Rochester
§ Hattox, F. S. ..... Rochester
§ Hauch, E. W. ..... Rochester
§ Havens, F. Z. ..... Rochester
§ Hayes, D. W. .... New Orleans, La.
§ Haynes, A. L. ..... Rochester
§ Healy, M. M. ..... Rochester
§ Heck, F. J. ..... Rochester
§† Heilman, D. M. H. ..... Rochester
§ Heilman, F. R. ..... Rochester
† Helland, G. M. ..... Spring Grove
† Helland, J. W. ..... Spring Grove
§† Helmholz, H. F. ..... Rochester
§† Hempstead, B. E. ..... Rochester
Hench, P. S. ..... Rochester
§ Henderson, E. D. ..... Rochester
§ Henderson, J. W. ..... Rochester
§ Henderson, M. S. ..... Rochester
§ Herbert, C. M., Jr. ..... Rochester
§ Herrell, W. E. ..... Rochester
§ Hetrick, M. A. ..... Rochester
§† Hewitt, R. M. ..... Rochester
† Heyerdale, O. C. ..... Rochester
§ Hightower, N. C., Jr. .. Minneapolis
§ Hill, J. R. ..... Rochester
Hills, O. W. ..... Rochester
§ Hilsabeck, J. R. ..... Rochester
§ Hines, C. R., Jr., ... Rochester
§ Hines, Edgar A., Jr. ..... Rochester
§ Hodgson, C. H. ..... Rochester
§ Hodgson, J. R. ..... Rochester
§ Hoffman, M. S. ..... Rochester
§ Holland, C. R. ..... Rochester
Hollenhorst, R. W. ..... Rochester
§ Holman, C. B. ..... Rochester
§ Holt, A. H. ..... Rochester
§ Hood, R. T. ..... Rochester
§ Horton, B. T. ..... Rochester
§ Howell, Llewelyn P. ..... Rochester
§ Hubler, W. L. ..... Rochester
§ Hugenberg, W. C. ..... Rochester
§ Huizenga, K. A. ..... Rochester
§ Hunt, A. B. ..... Rochester
Hunt, William ..... Rochester
§ Hunter, J. S. ..... Rochester
§ Hunter, R. C. ..... Rochester
§ Ivins, J. C. ..... Rochester
§ Ivy, J. H. ..... Rochester
§ Jackman, R. J. ..... Rochester
§ Jampolis, R. W. ..... Rochester
§ Janes, J. M. ..... Rochester
Johnson, Adelaide M. ..... Rochester
Johnson, A. B. ..... Rochester
§ Johnson, C. E. ..... Rochester
§ Johnson, D. A. ..... Rochester
§ Johnson, H. A. ..... Rochester
§ Johnson, H. W. ..... Rochester
Johnson, R. B. ..... Lanesboro
§ Johnson, W. E. ..... Rochester
§‡ Jones, George W. ..... Ft. Leavenworth, Kan.
Jones, R. F. ..... Rochester
§ Jordan, R. A. ..... Rochester
§ Josselson, A. J. ..... Rochester
Joyce, G. L. ..... Rochester
§ Judd, E. S., Jr. ..... Rochester
§ Judge, D. J. ..... Rochester
Karlen, Markle ..... Rochester
§ Keating, F. R., Jr. ..... Rochester
§ Keating, J. U. ..... Rochester
§ Keith, H. M. ..... Rochester
§† Keith, N. M. ..... Rochester
§ Kelley, E. P. ..... Rochester
Kelly, A. H. ..... Rochester
§ Kelsey, J. R. ..... Rochester
§ Kennedy, R. L. J. ..... Rochester
Kennedy, T. V. A. ..... Rochester
§ Kenney, F. D. ..... Rochester
§ Kernohan, J. W. ..... Rochester
§ Kiely, J. M. ..... Rochester
§ Kierland, R. R. ..... Rochester
§ Kimbrough, R. F. ..... Rochester
§ Kirby, T. J., Jr. ..... Rochester
§ Kirklin, B. R. ..... Rochester
§ Kirklin, J. W. ..... Rochester
§ Kleckner, M. S. ..... Rochester
Knight, C. D. ..... Rochester
Knutson, L. A. ..... Spring Grove
§ Knutson, R. C. ..... Rochester
Knutsson, K. H. ..... Rochester
§ Koelsche, G. A. ..... Rochester
§ Koza, D. W. ..... Rochester
§ Krakowka, G. F. ..... Rochester
§ Kroboth, F. J., Jr. ..... Rochester
§ Krout, R. M. ..... Rochester
§ Krusen, F. H. ..... Rochester
§ Kunkel, Wm. M., Jr. ..... Rochester
§ Kvale, W. F. ..... Rochester
§ Lake, C. F. ..... Rochester
§ Lamp, C. B., Jr. ..... Rochester
§ Lay, C. L. ..... Rochester
§ Lazarte, J. A. ..... Rochester
§ Leddy, E. T. ..... Rochester
§ Lee, M. J., Jr. ..... Tyler, Te...s
§† Lemon, W. S. ..... Rochester
§ Lick, L. C. ..... Rochester
§ Lillie, H. I. ..... Rochester
§ Lillie, J. C. ..... Rochester
§ Lipscomb, P. R. ..... Rochester
§ Litin, E. M. ..... Rochester
§ Livermore, G. R. ..... Rochester
§ Lofgren, K. A. ..... Rochester
§† Logan, Archibald H. ..... Rochester
§ Logan, G. B. ..... Rochester
§ Longley, J. R. ..... Rochester
§ Longo, V. J. ..... Rochester
§ Love, J. G. ..... Rochester
§ Lucas, J. E. ..... Saint Paul
§ Lundy, J. S. ..... Rochester
§ MacCarty, C. S. ..... Rochester
§† MacCarthy, W. C. ..... Rochester
§ MacFarlane, E. B. ..... Rochester
§ MacKenzie, D. A. ..... Rochester
§ MacLean, A. R. ..... Rochester
§ Madison, M. S. ..... Rochester
§ Magath, T. B. ..... Rochester
Manger, W. M. ..... Rochester
§ Mankin, H. W. ..... Rochester
§† Mann, F. C. ..... Rochester
Mann, F. D. ..... Rochester
§ Mann, R. H. ..... Rochester
§ Markle, G. B., IV ..... Rochester
§ Martens, T. G. ..... Rochester
§ Martin, G. M. ..... Rochester
§ Martin, W. J. ..... Rochester
§ Masson, D. M. ..... Rochester
§† Masson, J. C. ..... Rochester
§ Masson, J. K. ..... Rochester
Mathieson, D. R. ..... Rochester
§ Maxeiner, S. R., Jr. ..... Rochester
Mayne, J. G. ..... Rochester
§ Mayo, C. W. ..... Rochester
Maytum, C. K. ..... Rochester
McBean, J. B. ..... Rochester
§ McBurney, R. P. ..... Rochester
McConahey, W. M., Jr. .. Rochester
§ McCormack, L. J. ..... Rochester
§ McDonald, J. R. ..... Rochester
McIntire, S. F. ..... Rochester
McKaig, C. B. ..... Pine Island
§ McMorris, R. O. ..... Rochester
§ McNaughton, R. A. ..... Rochester
§ McNeill, J. I. ..... Rochester
McWhorter, H. E. ..... Rochester
§ Merritt, W. A. ..... Rochester
Miller, E. M. ..... Rochester
§ Miller, R. D. ..... Rochester
§ Millikan, C. H. ..... Rochester
§ Mills, S. D. ..... Rochester
§ Moersch, F. P. ..... Rochester
§ Moersch, H. J. ..... Rochester
§ Moersch, R. U. ..... Rochester
§ Monsour, K. J. ..... Rochester
§ Montgomery, Hamilton .... Rochester
§ Morlock, C. G. ..... Rochester
§ Morris, C. R. ..... Dallas, Texas
§ Morrison, R. W. ..... Rochester
§ Morrow, R. P., Jr. New Orleans, La.
§‡ Morton, G. H. .. Scott Air Base, Ill.
Mussey, M. E. ..... Rochester
§ Mussey, W. C. ..... Rochester
‡ Myers, C., III ... San Antonio, Tex.
§ Myers, T. T. ..... Rochester
§ Myers, W. P. L. ..... Rochester
§ Myre, T. T. ..... Rochester
Nehring, J. P. ..... Preston
Nelson, P. A. ..... Rochester
§ Nichols, D. R. ..... Rochester
§ Nicholson, J. W. ..... Rochester
Norris, N. T. ..... Caledonia
Norval, M. A. ..... Rochester
§ O'Cain, R. K. ..... Rochester
§ O'Leary, P. A. ..... Rochester
§ O'Shaughnessy, E. J. .... Rochester
§ Odel, H. M. ..... Rochester
§ Olive, J. T., Jr., ... Rochester
§ Olsen, A. M. ..... Rochester
Olson, E. A. ..... Pine Island
Olson, G. E. ..... West Concord

Onsgard, L. K. .....Houston
§ Openshaw, C. R. .....Rochester
§ Osborn, J. E. .....Rochester
Osterholm, R. S. .....Rochester
§ Owen, H. W. .....Rochester
§ Parker, R. L. .....Rochester
Parkhill, E. M. .....Rochester
Parkin, Thomas W. .....Rochester
§ Parsons, W. B., Jr. .....Rochester
§ Patton, M. M., Jr. .....Rochester
§ Patton, M. M., Jr. ..Eugene, Ore.
§ Paulson, G. S. .....Rochester
§ Paulson, J. A. .....Rochester
§ Paynter, C. R. .....Rochester
§ Peabody, H. D., Jr. .....Rochester
§ Peabody, H. D., Jr. San Diego, Cal.
Pease, G. L. .....Rochester
Pemberton, J. deJ. .....Rochester
§ Pender, J. W. .....Rochester
§ Perry, Harold .....Rochester
§ Peters, G. A. .....Rochester
§ Petersen, M. C. .....Rochester
Peterson, W. H. .....Spring Valley
§ Phares, W. S. .....Rochester
† Piper, M. C. ....La Canada, Calif.
§ Pool, T. L. .....Rochester
§ Porter, G. E. .....Rochester
§ Post, D. B. .....Rochester
Powers, W. W. .....Rochester
§ Prangen, A. D. .....Rochester
§ Pratt, J. H., Jr. .....Rochester
§ Prickman, L. E. .....Rochester
§ Pridgen, J. E. ..San Antonio, Tex.
§ Priestley, J. T. .....Rochester
§ Pruitt, R. D. .....Rochester
§ Pugh, D. G. .....Rochester
Pyle, M. M. .....Cannon Falls
§ Quer, E. A. .....Rochester
Rall, J. E. .....New York, N. Y.
§ Ralston, D. E. .....Rochester
§ Randall, L. M. .....Rochester
§ Randall, R. V. .....Rochester
§ Randall, W. H. ..Grand Forks, N. D.
§ Rasmussen, W. C. .....Rochester
Reitemeier, R. J. .....Rochester
§ Reiter, R. A. .....Rochester
§ ReMine, W. H., Jr. .....Rochester
§ Retter, Richard .....Rochester
Rice, R. G. .....Grand Island, Neb.
§ Riddell, R. V. .....Lowell, Mass.
§ Ridley, R. W. .....Rochester
‡ Rigler, R. G. .....Portsmouth, Va.
§ Ripley, H. R. .....Rochester
§ Risser, A. F. .....Stewartville
§ Robinson, A. W. .....Rochester
§ Rogne, W. G. .....Spring Grove
§ Rome, H. P. .....Rochester
§ Romness, J. O. .....Rochester
§ Rooke, E. D. .....Rochester
§ Rosin, J. D. .....Rochester
Rotnem, O. M. .....Harmony
§ Routley, E. F. .....Rochester
§ Rovelstad, R. A. .....Rochester
§ Rucker, C. W. .....Rochester
§ Rushton, J. G. .....Rochester
§ Rusted, Ian .....Rochester
§ Rydell, J. R. .....Rochester
§ Rynearson, E. H. .....Rochester
§ Salassa, R. M. .....Rochester
§† Sanford, A. H. .....Rochester
§ Sauer, W. G. .....Rochester
§ Saunders, B. H., Jr. .....Rochester
§ Saxon, R. F., Jr. .....Rochester
Sayre, G. P. .....Rochester
§ Scanlon, P. W. .....Rochester
§ Scheidel, A. M. ...Aberdeen, S. D.
§ Scheifley, C. H. .....Rochester
§ Schell, R. F. .....Rochester
§ Scherbel, A. L. ....Cleveland, Ohio
§ Schmidt, H. W. .....Rochester
§ Scholz, D. A. .....Rochester
§ Scribner, B. H. .....Rochester
§ Scudamore, H. H. .....Rochester
Seagle, J. B. .....Rochester
Seale, R. A. .....Rochester
Seebach, L. M. .....Rochester
§ Seldon, T. H. .....Rochester
§ Shands, W. C. .....Rochester
§ Shick, R. M. .....Rochester
‡ Shocket, Everett .....Dayton, Ohio
§ Sholl, P. R. .....Rochester
‡ Siekert, R. G. .....Philadelphia, Pa.
§ Siemon, Glenn .....Rochester
Simmons, W. H. .....Rochester
§ Simonton, K. M. .....Rochester
Skaug, H. M. .....Chatfield
§ Slocumb, C. H. .....Rochester
Smith, Franklin R. ..Seattle, Wash.
§† Smith, F. L. .....Rochester
§ Smith, H. L. .....Rochester
§ Smith, L. A. .....Rochester
§ Smith, N. D. .....Rochester
§ Soule, E. H. .....Rochester
§ Spear, H. C. .....Rochester
§ Spear, I. M. .....Rochester
Spencer, B. J. .....Rochester
§ Spock, B. M. .....Pittsburgh, Pa.
§ Sprague, R. G. .....Rochester
§ Stapley, L. A., Jr. .....Rochester
§ Stark, D. B. .....Rochester
§ Stauffer, M. H. .....Rochester
§ Stickney, J. M. .....Rochester
§ Stilwell, G. G. .....Rochester
§ Stinson, J. C., Jr. .....Rochester
Storsteen, K. A. .....Rochester
Stowe, H. R. .....Rochester
§ Stroebel, C. F., Jr. .....Rochester
Stuhler, L. G. .....Rochester
§† Sutherland, C. G. .....Rochester
§ Takaro, Timothy .....Rochester
§ Taylor, A. B. .....Rochester
§ Taylor, B. E. .....Lincoln, Neb.
§ Taylor, L. M. .....Rochester
§ Taylor, R. W., Jr. .....Rochester
Teitgen, R. E. ....Milwaukee, Wis.
§ Thelen, E. P. .....Rochester
§ Thompson, G. J. .....Rochester
Tihen, E. N. .....Rochester
§ Tillisch, J. H. .....Rochester
§ Tobin, J. R., Jr. .....Rochester
§ Tompkins, R. G. .....Rochester
§ Uihlein, Alfred .....Rochester
§ Upson, Mark, Jr. .....Rochester
§ Utz, J. P. .....Rochester
§ Uzmann, J. W.
Lynbrook, Long Island, N. Y.
§ Vadheim, L. A. .....Rochester
§ VanHerik, Martin .....Rochester
§ VanPatter, Ward .....Rochester
VanVleet, M. E. .....Rochester
§ Vaughn, L. D. .....Rochester
§ Wagener, H. P. .....Rochester
Wakefield, E. G. .....Rochester
§† Wakim, K. G. .....Rochester
§ Walters, Waltman .....Rochester
Wang, Jun-Chuan .....Minneapolis
§ Ward, L. E. .....Rochester
§ Watkins, C. H. .....Rochester
§ Watson, J. B. .....Rochester
§ Watson, J. R. .....Rochester
§ Waugh, J. M. .....Rochester
§ Webb, J. H. .....Rochester
§ Weber, H. M. .....Rochester
§ Weber, W. E. .....Rochester
§ Weed, L. A. .....Rochester
§ Weir, J. F. .....Rochester
§ Wellman, W. E. .....Rochester
§ Wente, H. A. .....Rochester
§ Westrup, J. E. .....Lanesboro
§ Weyand, R. D. .....Rochester
§ Wilhelm, W. F. .....Rochester
§ Williams, H. L., Jr. .....Rochester
§ Williams, L. B. .....Rochester
† Williams, R. V. .....Rushford
§ Willius, F. A. .....Rochester
§ Wilson, R. B. .....Rochester
§ Wilson, V. O. .....Rochester
§ Winburn, J. R. .....Rochester
§ Winchester, W. W. .....Rochester
§ Wollaeger, E. E. .....Rochester
§ Woltman, H. W. F. .....Rochester
§† Wood, Harry G. .....Rochester
Woolling, K. R. .....Rochester
§ Woolner, L. B. .....Rochester
§ Wright, S. M. .....Rochester
§ Young, H. H. .....Rochester
§ Zick, L. H. .....Rochester
§ Zimmer, F. E. .....Rochester

PARK REGION DISTRICT AND COUNTY MEDICAL SOCIETY

Douglas, Grant, Otter Tail and Wilkin Counties
Regular meeting date, every even month of the year
Annual meeting, December
Number of Members: 66

President
Schambers, W. F. ...Parkers Prairie

Secretary
Lewis, C. W. .....Henning

§ Arndt, H. W. .....Detroit Lakes
§ Baker, A. C. .....Fergus Falls
Baker, J. L. .....Fergus Falls
§ Baker, N. H. .....Fergus Falls
Bergquist, K. E. .....Battle Lake
Bigler, E. E. .....Perham
Bigler, I. E. .....Perham
† Blakey, A. R. .....Osakis
§ Boline, C. A. .....Battle Lake
§ Boyd, L. M. .....Alexandria
† Boysen, Peter .....Bemidji
*§ Burnap, W. L. .....Fergus Falls
Cain, J. H. .....Hoffman
§ Carlson, C. E. .....Alexandria
§ Clifford, G. W. .....Alexandria
§ Combacker, L. C. .....Fergus Falls
§ Daehlin, Rolf .....Fergus Falls
De Kruif, H. .....Fergus Falls
*† Drought, W. W. .....Fergus Falls
§ Emerson, E. E. .....Osakis
§ Estrem, C. O. .....Fergus Falls
§ Estrem, R. D. .....Fergus Falls
§ Geiser, P. M. .....Alexandria
Hanson, E. C. .....New York Mills
Harris, Evelyn S. .....Fergus Falls
§† Haskell, A. D. .....Alexandria
§ Heiberg, E. A. .....Fergus Falls
§ Helseth, H. K. .....Pelican Rapids
Hom, Leong Y. W. ....Battle Lake
Jacobs, G. C. .....Fergus Falls
§ Jacobson, C. W. .....Breckenridge
§ Kevern, J. L. .....Henning
§ Korda, H. A. .....Pelican Rapids
Leibold, H. H. ....Parkers Prairie
§ Lewis, A. J. .....Henning
§ Lewis, C. W. .....Henning
Love, F. A. .....Carlos
§ Lund, C. J. T. .....Fergus Falls
Miller, W. A. .....New York Mills
§ Mortensen, N. G. .....Minneapolis
§ Mouritsen, G. J. .....Fergus Falls
§ Naegeli, F. .....Fergus Falls
Nelson, D. E. .....Alexandria
Nelson, R. A. .....Fergus Falls
§§ Nelson, W. O. B. .....Fergus Falls
§§ O'Brien, L. T. .....Breckenridge
Ostergaard, Erling .....Evansville
Parson, Lillian B. .....Elbow Lake
Parson, L. R. .....Elbow Lake
Patterson, W. L. .....Fergus Falls
§ Paulson, T. S. .....Fergus Falls
Randall, A. M. .....Ashby
Reeve, E. T. .....Elbow Lake
Rockwood, P. H. .....Fergus Falls
Satersmoen, Theo. ...Pelican Rapids
§ Sather, E. R. .....Alexandria
Schamber, W. F. ...Parkers Prairie
Schoeneberger, P. B. .....Perham
§ Stemsrud, H. L. .....Alexandria
Sutton, H. R. .....Hoffman
§ Tanquist, E. J. .....Alexandria
Thompson, H. B. .....St. Cloud
Warner, J. J. .....Perham
§ Wasson, L. F. .....Alexandria
‡ Weyhrauch, R. A. ..Phoenix, Ariz.
† Wray, W. E. .....Campbell

RAMSEY COUNTY MEDICAL SOCIETY

Regular meetings, last Monday in every month excepting June, July, August
Annual meeting, last Monday in January
Number of Members: 453

President
Hedenstrom, F. G. .....Saint Paul
Secretary
Hilger, L. D. .....Saint Paul

§ Adair, A. F., Jr. .....Saint Paul
§ Aherns, A. H. .....Saint Paul
§ Aherns, A. E. .....Saint Paul
Ahrens, R. M. .....Saint Paul
§† Alden, J. F., Jr. .....Saint Paul
§ Arnquist, A. S. .....Saint Paul
§ Arny, F. P. .....Saint Paul
§ Arzt, P. K. .....Saint Paul

§ Aurelius, J. R. .....Saint Paul
§†Ausman, C. F. .....So. Saint Paul
§ Ausman, D. R. .....Saint Paul
§ Babb, Frank S. .....Saint Paul
§ Bacon, D. K. .....Saint Paul
§ Balcome, M. M. .....Saint Paul
Barnett, J. M. .....Saint Paul
Baronofsky, I. D. .....Minneapolis
Barry, L. W. .....Saint Paul
† Barsness, N. O. N. .....Saint Paul
Bauer, E. L. .....Saint Paul
§†Beals, Hugh .....Saint Paul
§ Beech, R. H. .....Saint Paul
§ Beek, H. O. .....Saint Paul
Beer, J. J. .....Saint Paul
§ Bell, C. C. .....Saint Paul
Bellomo, James .....Saint Paul
§ Benepe, J. L. .....Saint Paul
† Bennion, P. H. .....Isway, Mont.
§ Bentley, N. P. .....Saint Paul
§ Bernstein, Wm. C. .....Saint Paul
§ Bicek, J. F. .....Saint Paul
† Binger H. E. .....Phoenix, Ariz.
Black, E. J. .....Saint Paul
§ Bock, R. A. .....Saint Paul
† Boeckman, Egil .....Saint Paul
§ Bolender, H. L. .....Saint Paul
§ Borg, J. F. .....Saint Paul
† Bouma, L. R. .....Saint Paul
§ Brand, G. D. .....Saint Paul
Bray, E. R. .....Saint Paul
§ Briggs, John F. .....Saint Paul
§ Broadie, T. E. .....Saint Paul
§ Brodie, W. D. .....Saint Paul
§ Brotchner, R. J. .....Saint Paul
† Brown, J. C. .....Saint Paul
Bulinski, T. J. .....Saint Paul
§ Burch, E. P., II .....Saint Paul
† Burch, F. E. .....Saint Paul
§ Burklund, E. D. .....Saint Paul
§ Burlingame, D. A. .....Saint Paul
§ Burns, R. M. .....Saint Paul
Burton, C. G. .....Saint Paul
Bush, R. P. .....Saint Paul
§ Busher, H. H. .....Saint Paul
§ Cain, C. L. .....Saint Paul
Callahan, F. F. .....Saint Paul
§ Carley, W. A. .....Saint Paul
§ Carroll, W. C. .....Saint Paul
§ Chadbourn, C. R. .....Saint Paul
§ Chatterton, C. C. .....Saint Paul
§ Christiansen, A. .....Saint Paul
§ Clark, H. B., Jr. .....Minneapolis
Cochrane, B. B. .....Saint Paul
Coddon, W. D. .....Saint Paul
Cohen, Ellis N. .....Newton, Mass.
§ Colby, W. L. .....Saint Paul
§ Cole, W. H. .....Saint Paul
† Collie, H. G. ..St. Petersburg, Fla.
§ Connolly, C. J. .....Saint Paul
§ Connor, C. E. .....Saint Paul
§ Cook, C. K. .....Saint Paul
§ Cooper, C. C. .....Saint Paul
§ Countryman, R. S. .....Saint Paul
* Cowern, E. W. .....No. Saint Paul
§ Craig, D. M. .....Saint Paul
§ Critchfield, L. R. .....Saint Paul
Crombie, F. J. .....No. Saint Paul
Crowley, J. H. .....Saint Paul
‡ Crudo, V. D.
Ft. Sam Houston, Texas
§ Crump, J. W. .....Saint Paul
§ Culligan, J. M. .....Saint Paul
§ Culver, L. G. .....Saint Paul
*†Daugherty, E. B.
Marine-on-St. Croix
§ Davis, E. V. .....Saint Paul
Dawson, J. R. .....Saint Paul
Day, Lois A. .....Saint Paul
Decker, C. H. .....Saint Paul
§*Dedolph, Karl .....Saint Paul
§ Derauf, B. I. .....Saint Paul
§ Deters, D. C. .....Saint Paul
† Dickson, T. H. .....Saint Paul
Donohue, P. F. .....Saint Paul
§ Drake, C. B. .....Saint Paul
§ Dunn, J. N. .....Saint Paul
§ Earl, G. A. .....Saint Paul
§ Earl, J. R. .....Saint Paul
§ Edlund, Gustaf .....Saint Paul
Edwards, J. W. .....Saint Paul
Edwards, L. G. .....Saint Paul
§ Edwards, T. J. .....Saint Paul
§ Eginton, C. T. .....Saint Paul
Ely, O. S. .....So. Saint Paul
§ Emerson, E. C. .....Saint Paul
§ Emmons, R. W. .....Saint Paul
§ Endress, E. K. .....Saint Paul
Enroth, O. E. .....Saint Paul
Ernest, G. C. H., St. Petersburg, Fla.
§ Ersfeld, M. P. .....Saint Paul
† Eshelby, E. C. .....Saint Paul
Evert, J. A., Jr. .....Saint Paul
† Fahey, E. W. .....Saint Paul
Farkas, J. V. .....Saint Paul
Fee, J. G. .....Saint Paul
Felion, A. J. .....Saint Paul
§†Ferguson, J. C. .....Saint Paul
§ Fesler, H. H. .....Saint Paul
Field, A. H. .....Farmington
Fink, D. L. .....Saint Paul
§ Fisher, D. W. .....Saint Paul
§ Flanagan, H. F. .....Saint Paul
§ Flannery, H. F. .....Saint Paul
Flynn, L. L., Jr. .....Saint Paul
§ Fogarty, C. W., Jr. .....Saint Paul
† Fogarty, C. W. .....Saint Paul
§ Fogelberg, E. J. .....Saint Paul
§ Foley, F. E. B. .....Saint Paul
Forsythe, J. R. .....Saint Paul
† Freeman, C. D. .Balsam Lake, Wisc.
Freeman, C. D., Jr. .....Saint Paul
Freeman, G. I. .....Saint Paul
Freidman, L. L. .....Saint Paul
§ Fritz, W. L. .....Saint Paul
§ Froats, C. W. .....Saint Paul
Fuller, B. F. .....Saint Paul
Furnell, D. Q. .....Saint Paul
§ Garbrecht, A. W. .....Saint Paul
Gardiner, D. G. .....Saint Paul
§ Gardner, W. P. .....Saint Paul
Garrow, D. M. .....Saint Paul
§ Gehlen, J. N. .....Saint Paul
§ Ghent, C. H. .....Saint Paul
§ Gibbs, E. C. .....Saint Paul
Gilkey, S. E. .....Saint Paul
§ Gillespie, D. R. .....Saint Paul
§ Gleason, W. A. .....Saint Paul
Goldsmith, J. W. .....Saint Paul
§†Goltz, E. V. .....Saint Paul
Goltz, N. F. .....Saint Paul
Goltz, R. W. .....Saint Paul
§ Grant, H. W. .....Saint Paul
§ Gratzek, Thos. .....Saint Paul
§ Grau, R. K. .....Saint Paul
† Gruenhagen, A. P. .....Saint Paul
Hall, Bernard .....Saint Paul
§ Hammes, E. M. .....Saint Paul
§ Hammes, E. M., Jr. .....Saint Paul
Hammond, J. F. .....Saint Paul
§ Hanson, H. B. .....Saint Paul
§ Harmon, G. E. .....Saint Paul
§ Hartfiel, W. F. .....Saint Paul
Hartig, Marjorie .....Saint Paul
§ Hartley, E. C. .....Saint Paul
§ Hassett, M. F. .....Saint Paul
§ Hauser, V. P. .....Saint Paul
§ Hayes, A. F. .....Saint Paul
Hays, J. C. .....Saint Paul
§ Heck, W. W. .....Saint Paul
Hedenstrom, F. G. .....Saint Paul
Henderson, A. J. G. .....Saint Paul
§ Hengstler, W. H. .....Saint Paul
§ Hensel, C. N. .....Saint Paul
Herman, S. M. .....Saint Paul
§ Heron, R. C. .....Saint Paul
§ Herrmann, E. T. .....Saint Paul
Hertz, M. J. .....Saint Paul
§ Hilger, A. W. .....Saint Paul
§ Hilger, D. D. .....Saint Paul
§ Hilger, J. A. .....Saint Paul
§ Hilger, L. D. .....Saint Paul
§ Hilker, M. D. .....Saint Paul
Hiniker, L. P. .....Saint Paul
§ Hochfilzer, J. J. .....Saint Paul
Hodgson, J. E. .....Saint Paul
Holcomb, O. W. .....Saint Paul
§ Hollinshead, W. H. .....Saint Paul
§ Holmen, R. W. .....Saint Paul
§ Holt, J. E. .....Saint Paul
† Hopkins, G. W. .....Saint Paul
Houle, R. J. .....New Brighton
Howard, M. A. .....Saint Paul
Howard, W. S. .....Saint Paul
§ Howe, N. W. .....Saint Paul
§ Hullsiek, H. E. .....Saint Paul
§ Hullsiek, R. B. .....Minneapolis
§ Hultgen, W. J. .....Saint Paul
§ Hurwitz, M. M. .....Saint Paul
§†Ide, Arthur M. .....Saint Paul
Ikeda, Kano .....Saint Paul
Ingerson, C. A. .....Saint Paul
Tesion, J. W. .....Saint Paul
§ Johanson, W. G. .....Saint Paul
§*Johnson, A. M. .....Saint Paul
§ Johnson, C. E. .....Saint Paul
§ Jones, F. Mendelssohn ..Saint Paul
Jones, R. H. .....Minneapolis
§ Kamman, G. R. .....Saint Paul
Kaplan, D. H. .....Saint Paul
Karon, I. M. .....Saint Paul
§ Kasper, E. M. .....Saint Paul
Katz, L. J. ..Hot Springs, So. Dak.
Keefe, R. E. .....Saint Paul
§ Kelly, J. V. .....Saint Paul
§ Kelsey, C. M. .....Saint Paul
§ Kenefick, F. V. .....Saint Paul
§ Kennedy, W. A. .....Saint Paul
§ Kenyon, T. J. .....Saint Paul
§ Kesting, Herman .....Saint Paul
† King, G. L. .....Saint Paul
§ Klein, H. N. .....Saint Paul
§ Knutson, G. E. .....Saint Paul
§ Kugler, A. A. .....Saint Paul
§ Kuske, A. W. .....Saint Paul
Kvitrud, Gilbert .....Saint Paul
‡ Lane, R. E. .....Annapolis, Md.
§ Lannin, B. G. .....Saint Paul
§ Lannin, D. R. .....Saint Paul
Larsen, C. L. .....Saint Paul
Larson, Eva-Jane .....Saint Paul
Larson, J. T. .....So. Saint Paul
Larson, K. R. .....Saint Paul
Larson, M. L. .....Saint Paul
Lax, Morris H. .....Saint Paul
§ Leahy, Bartholomew ....Saint Paul
§ Leavenworth, R. O. ....Saint Paul
Lee, N. J. .....Saint Paul
§ Leick, R. M. .....Saint Paul
§ Leitch, Archibald .....Saint Paul
§ Lepak, J. A. .....Saint Paul
† Lerche, Wm. .....Cable, Wisc.
§ Leven, N. L. .....Saint Paul
§ Leverenz, C. W. .....Saint Paul
Levin, B. G. .....Saint Paul
Levitt, George X. .....Saint Paul
§ Lick, C. L. .....Saint Paul
§ Lien, R. J. .....Saint Paul
Lightbourn, E. L. .....Saint Paul
Lilleberg, N. J. .....Saint Paul
§ Lippman, H. S. .....Saint Paul
§ Loken, S. M. .....Saint Paul
Lowe, E. R. .....So. Saint Paul
Lowe, T. A. .....So. Saint Paul
§ Lundholm, A. M. .....Saint Paul
§ Lynch, F. W. .....Saint Paul
Mackoff, S. M. .....Saint Paul
§ Madden, J. F. .....Saint Paul
Madland, R. S. .....Saint Paul
Maertz, Wm. F. .....Saint Paul
§ Malerich, J. A. .....W. Saint Paul
Marks, R. W. .....Saint Paul
Martin, D. L. .....Saint Paul
§ Martineau, J. L. .....Saint Paul
§ McCabe, J. S. .....Saint Paul
McCain, D. L. .....Saint Paul
McCarthy, J. J. .....Saint Paul
McCarthy, Wm. R. .....Saint Paul
McClanahan, J. H. .White Bear Lake
McClanahan, T. S. .White Bear Lake
§ McCloud, C. N. .....Saint Paul
McEwan, Alexander .....Saint Paul
McGroarty, B. J. .....Saint Paul
McKenzie, E. E. .....Saint Paul
† McLaren, J. M. .....Minneapolis
§ Meade, J. R. .....Saint Paul
§ Mears, B. J. .....Saint Paul
§ Medelman, J. P. .....Saint Paul
Melancon, J. F. .....Saint Paul
Menold, Wm. F. .....Saint Paul
Merner, T. B. .....Faribault
§ Meverding, E. A. .....Saint Paul
Michienzi, L. J. .....Saint Paul
Miller, Wm. T. ....W. Saint Paul
Miller, Z. R. .....Saint Paul
Milnar, F. J. .....Saint Paul
§ Moga, John A. .....Saint Paul
Molander, H. A. .....Saint Paul
Moquin, M. A. .....Saint Paul
† Moren, J. A. .....Saint Paul
Moriarty, Bernice .....Saint Paul
Moriarty, Cecile R. .....Saint Paul
§ Muller, A. E. .....No. Saint Paul
§ Muller, R. T. .....Saint Paul
Mundahl, H. P. .....Saint Paul
Murphy, J. T. .....Saint Paul
Naegeli, A. E. .....Basin, Mont.
§ Nash, L. A. .....Saint Paul
† Nelson, L. A. .....Saint Paul
Nimlos, K. O. .....Saint Paul
Nimlos, L. O. .....Saint Paul
§ Noble, I. F. .....Saint Paul
§ Noble, J. L. .....Saint Paul
Nuebel, C. J. .....Hudson, Wisc.
Nye, Katherine A. .....Saint Paul
Nye, Lillian L. .....Saint Paul
O'Brien, J. C. .....Saint Paul
§ O'Connor, L. J. .....Saint Paul
O'Kane, T. W. .....Saint Paul
§ O'Reilley, B. E. .....Saint Paul
§ Ockuly, Orville .....Saint Paul
§ Ogden, Warner .....Saint Paul
§ Ohage, Justus .....Saint Paul
§ Olsen, R. L. .....Saint Paul
Olson, C. A. .....Saint Paul
§ Ostergren, Edw. W. ....Saint Paul
§ Ouellette, A. J. .....Saint Paul
Owens, F. M., Jr. .....Minneapolis
Pearson, F. R. .....Saint Paul
§ Pearson, M. M. .....Saint Paul
Pedersen, A. H. .....Saint Paul
Perrigo, V. F. ....El Cajon, Calif.
Peterson, D. B. .....Saint Paul
§ Peterson, D. H. .....Saint Paul
§ Peterson, H. O. .....Saint Paul

Peterson, J. L. E. .....Saint Paul
§ Plondke, F. J. .....Saint Paul
§ Plotke, H. L. .....Saint Paul
Polski, P. G. .....So. Saint Paul
§† Prendergast, H. J. .....Saint Paul
Quattlebaum, Frank .....Saint Paul
* Radabaugh, R. C. .....Hastings
§ Ralph, J. R. .....Saint Paul
† Ramsey, W. R. .....Saint Paul
Rasmussen, R. C. .....Saint Paul
Ravits, H. G. .....Saint Paul
§ Rea, Charles E. .....Saint Paul
Reid, James W. .....Saint Paul
§ Richards, E. T. F. .....Saint Paul
Richardson, E. J., Jr. ....Saint Paul
§ Richardson, H. E. .....Saint Paul
§ Richardson, R. J. .....Saint Paul
Rick, Paul F. W. .....Saint Paul
Rinkey, Eugene .....Saint Paul
§ Ritchie, W. P. .....Saint Paul
§ Ritt, A. E. .....Saint Paul
Robinson, C. O. .....Saint Paul
§ Rogers, S. F. .....Saint Paul
Rogin, Norton .....Farmington
Rolig, D. H. .....Saint Paul
Rosenholtz, B. I. .....Saint Paul
§ Rosenthal, Robert .....Saint Paul
§ Roth, G. C. .....Saint Paul
§ Rothschild, H. J. .....Saint Paul
§ Roy, Phil C. .....Saint Paul
† Ruhberg, Geo. N. ..Tarzona, Calif.
Ryan, James D. .....Saint Paul
§ Ryan, John J. .....Saint Paul
§ Ryan, Jos. M. .....Saint Paul
§* Ryan, Mark E. .....Saint Paul
Sandeen, R. M. .....Saint Paul
§ Sarnecki, M. W. .....Saint Paul
Satterlund, V. L. .....Saint Paul
Savage, F. J. .....Saint Paul
§ Schmidtke, R. L. .....Saint Paul
Schoch, R. B. J. .....Saint Paul
§ Schons, Edward .....Saint Paul
§ Schroeckenstein, H. F. ..Saint Paul
§† Schuldt, F. C. .....Saint Paul
§ Schulze, A. G. .....Saint Paul
§ Schwyzer, H. C. .....Saint Paul
§ Scott, E. E. .....Saint Paul
Sekhon, M. S. .....Saint Paul
† Senkler, G. E. .....Saint Paul
§ Setzer, H. J. .....Saint Paul
Shannon, Wm. R. .....Saint Paul
† Shellman, J. L. Pacific Palisades, Calif.
‡ Shimonek, S. W. ..Great Lakes, Ill.
Short, Jacob .....Saint Paul
§ Sickels, E. W. .....Saint Paul
Siegel, Clarence .....Saint Paul
§ Simons, L. T. .....Saint Paul
Singer, B. J. .....Saint Paul
Skinner, Abbott .....Saint Paul
† Skinner, H. O. .....Saint Paul
§ Smisek, E. A. .....Saint Paul
§ Smith, V. D. E. .....Saint Paul
§ Snyder, Geo. Wm. .....Saint Paul
§ Sohlberg, O. I. .....Saint Paul
Sommers, Ben .....Saint Paul
§ Sorem, M. B. .....Saint Paul
Soucheray, P. H. .....Saint Paul
§ Souster, B. B. .....Saint Paul
§ Sprafka, J. L. .....Saint Paul
§ Sprafka, J. M. .....Saint Paul
§ Steinberg, C. L. .....Saint Paul
§ Sterner, D. C. .....Saint Paul
§ Sterner, E. G. .....Saint Paul
§ Sterner, E. R. .....Saint Paul
§ Sterner, J. J. .....Saint Paul
* Sterner, O. W. .....Saint Paul
Stewart, Alexander .....Saint Paul
§ Stolpestad, A. H. .....Saint Paul
§ Stolpestad, H. L. .....Saint Paul
§ Strate, G. E. .....Saint Paul
Straus, M. L. .....Saint Paul
§ Strem, E. L. .....Saint Paul
§ Sturley, R. F. .....Saint Paul
Swanson, J. A. .....Saint Paul
Swanson, L. J. .....West St. Paul
§ Swendson, J. J. .....Saint Paul
§ Teisberg, C. B. .....Saint Paul
§ Teisberg, J. E. .....Saint Paul
Thompson, F. A. .....Saint Paul
Thoreson, M. C. Bernice .....So. St. Paul
Thorsen, D. S. .....Saint Paul
Tifft, C. R. .....Saint Paul
§ Tracht, R. R. .....Saint Paul
§ Travis, J. S. .....Saint Paul
§ Tregilgas, H. R. .....So. Saint Paul
Van Bergen, F. H. .....Minneapolis
Varco, R. L. .....Saint Paul
Veirs, Dean M. .....Saint Paul
Veirs, Ruby J. S. .....Saint Paul
§ Venables, A. E. .....Saint Paul
§ von Amerongen, W. W. .Saint Paul
§ Waas, C. W. .....Saint Paul
§ Walker, A. E. .....Saint Paul
§ Walsh, Edw. F. .....Saint Paul
§ Walter, C. W. .....Saint Paul
§† Ward, Peter D. .....Saint Paul
Warren, C. A. .....Saint Paul
Watson, P. T. .....Saint Paul
Watson, W. H. A. .....Saint Paul
§ Watson, W. J. .....Newport
Watz, C. E. .....Saint Paul
§ Webber, F. L. .....Saint Paul
§ Weis, B. A. .....Saint Paul
§ Weisberg, Maurice .....Saint Paul
§ Wenzel, G. P. .....Saint Paul
Wesolowski, S. P. .....Minneapolis
† Wheeler, M. W. .....Lake Elmo
† Whitacre, J. C. .....Saint Paul
Williams, A. B. .....Saint Paul
§ Williams, C. K. .....Saint Paul
§ Williams, J. A. .....Saint Paul
§ Wilson, J. A. .....Saint Paul
§ Wilson, J. V. .....Saint Paul
Winnick, J. B. .....Saint Paul
§ Wold, K. C. .....Saint Paul
§ Wolff, H. J. .....Saint Paul
Wolkoff, H. J. .....Saint Paul
Word, H. L. .....Saint Paul
Wurdemann, A. L. .....White Bear Lake
Youngren, E. R. .....Saint Paul
Zachman, L. L. .....Saint Paul
§ Zimmermann, H. B. .....Saint Paul

RED RIVER VALLEY MEDICAL SOCIETY

Kittson, Mahnomen, Marshall, Norman, Pennington, Polk, Red Lake and Roseau Counties

Regular meetings, three—plus extras

Annual meeting, December

Number of Members: 73

President
Dale, L. N. .....Red Lake Falls

Secretary
Sather, R. O. .....Crookston

§† Adkins, C. M. ....Thief River Falls
§ Anderson, W. E. .....Clearbrook
‡ Behling, F. L. .....Moorhead
§ Behr, O. K. .....Crookston
§ Berge, D. O. .....Roseau
Berlin, A. S. .....Hallock
† Biedermann, Jacob. Thief River Falls
§ Boyer, G. S. .....Crookston
§ Boynton, Bruce .....Ada
† Bratrud, Edward ..Thief River Falls
Bratrud, T. E. ...Thief River Falls
Brink, A. A. .....Baudette
§ Cameron, J. H. .....Crookston
Carlson, A. E. .....Warren
§ Covey, K. W. .....Mahnomen
§ Dale, L. N. .....Red Lake Falls
Danford, K. A. .....Mahnomen
§ Delmore, J. L. .....Roseau
§ Delmore, J. L., Jr. .....Roseau
Delmore, R. J. .....Roseau
§ Erickson, Eskil .....Halstad
Feigal, W. M. ....Thief River Falls
Flancher, L. H. .....Crookston
§ Greene, D. E. ....Thief River Falls
§† Hendrickson, R. R. .....Crookston
§ Henney, W. H. .....McIntosh
† Hollands, W. H. .....Fisher
§ Holmstrom, C. H. .....Warren
Janecky, A. G. .....Baudette
§ Janssen, M. E. .....Crookston
§ Jensen, A. R. .....Crookston
Johnson, H. C. ....Thief River Falls
Johnson, R. E. .....Ah-Gwah-Ching
§ Kinkade, B. R. .....Ada
† Kirk, G. P. .....East Grand Forks
§ Klefstead, L. H. .....Greenbush
Knutson, G. A. .....Hallock
§ Kostick, W. R. .....Fertile
§ Loken, Theodore .....Ada
Lynde, O. G. .....Los Gato, Calif.
McKaig, A. M. ....Red Lake Falls
McLane, W. O. .....Brainerd
§† Melby, O. F. .....Thief River Falls
§ Mercil, W. F. .....Crookston
† Nelson, H. E. .....Crookston
Nickerson, N. D..Thief River Falls
§ Nietfeld, A. B. .....Warren
§ Norman, J. F. .....Crookston
O'Leary, J. H. ....Thief River Falls
§ Oppegaard, C. L. .....Crookston
§ Oppegaard, M. O. .....Crookston
†* Parsons, J. G. .....Crookston
Pearson, L. O. .....Erskine
§ Pohl, D. E. .....Crookston
§ Pumala, E. E. .....Warren
† Quigley, W. P. ...Brooklyn, N. Y.
§ Reff, A. R. .....Crookston
§ Roholt, H. B. .....Fosston
† Rydland, A. D. .....Minneapolis
Sather, E. L. .....Fosston
§ Sather, G. A. .....Fosston
§ Sather, R. N. .....Fosston
§ Sather, R. O. .....Crookston
§ Skogerboe, R. B. .....Karlstad
§ Starekow, M. D. ..Thief River Falls
Stewart, D. E. .....Crookston
‡ Stone, Norman F. .....Chicago, Ill.
† Torgerson, W. B. .....Oklee
§ Uhley, C. G. .....Crookston
Valenti, D. A. ....Thief River Falls
Van Rooy, G. T. ..Thief River Falls
§‡ Watson, R. M. ..Camp Rucker, Ala.
† Wiltrout, I. G. .....Oslo

RENVILLE COUNTY MEDICAL SOCIETY

Regular meetings, second Tuesday of each month

Annual meeting, October

Number of Members: 20

President
Anderson, C. A. .....Hector

Secretary
Cosgriff, Jr., J. A. .....Olivia

Alcorn, W. J. .....Wabasso
§ Anderson, C. A. .....Hector
§ Anderson, D. C. .....Olivia
§ Billings, R. E. .....Franklin
§† Brand, W. A. .....Redwood Falls
§ Ceplecha, S. F. ....Redwood Falls
§ Cosgriff, J. A. .....Olivia
Cosgriff, James A., Jr. .....Olivia
§ Dordal, John .....Sacred Heart
§ Fawcett, A. M. .....Renville
Flinn, T. E. .....Remer
§† Gaines, E. C. .....Buffalo Lake
§ Hinderaker, H. P. .....Bird Island
§ Johnson, O. H. ....Redwood Falls
§ Johnson, W. E. .....Morgan
§ Knoche, H. A., Jr. .....Morgan
Lenz, J. R. .....Morton
McLeod, J. J. .....Japan
Potthoff, C. J. ...Washington, D. C.
Preisinger, J. W. .....Renville

RICE COUNTY MEDICAL SOCIETY

Regular meeting, third Tuesday of every month
Annual meeting, October
Number of Members: 35

President
Traeger, C. A. .....Faribault

Secretary
Kolars, J. J. .....Faribault

§ Adkins, G. H. .....Faribault
Bruhl, H. H. .....Faribault
Buesgens, R. H. .....Waterville
§† Dungay, N. S. .....Northfield
§ Engberg, E. J. .....Faribault
Francis, D. W. .....Morristown
† Hanson, A. M. .....Faribault
§ Hanson, J. W. .....Northfield
† Huxley, F. R. .....Faribault
§ Kennedy, G. L. .....Faribault
§ Kolars, J. J. .....Faribault
§ Kucera, L. B. .....Lonsdale
§ Lende, Norman .....Faribault
Lexa, F. J. .....Lonsdale
§ Maertz, R. W. .....Faribault
§ Mears, R. F. .....Northfield
Meyer, F. C. .....Kenyon
Meyer, P. F. .....Faribault
Moses, R. R. .....Kenyon
Navratil, D. R. .....Montgomery
§ Nielson, A. M. .....Northfield
§ Nuetzman, A. W. .....Faribault
Petersen, D. H. .....Northfield
§ Robilliard, C. M. .....Faribault
Rohrer, C. A. .....Waterville
Rumpf, C. W. .....Faribault
§ Stevenson, F. W. .....Faribault
§ Street, Bernard .....Northfield
§ Studer, D. J. .....Faribault
§ Traeger, C. A. .....Faribault
‡ Utne, J. R. .....Northfield
Walter, G. F. .....Farmington
§ Weaver, P. H. .....Faribault
† Wilkinson, S. L. .....Faribault
§ Wilson, W. E. .....Northfield

ST. LOUIS COUNTY MEDICAL SOCIETY

Carlton, Cook, Itasca, Lake and St. Louis Counties
Regular meetings, second Thursday of each month
Annual meeting, January
Number of Members: 242

President
McHaffie, O. L. .....Duluth

Secretary
LaBree, R. H. .....Duluth

§ Abraham, A. L. .....Duluth
§ Adams, B. S. .....Hibbing
Addy, E. R. .....Gilbert
† Arhelger, Stuart .....Minneapolis
§ Arko, J. L. .....Hibbing
§* Armstrong, E. L. .....Duluth
§ Athens, Alvin G. .....Duluth
§ Bachnik, F. W. .....Hibbing
§ Backus, R. W. .....Nopeming
§ Bagley, C. M. .....Duluth
Bagley, E. C. .....Duluth
§ Bagley, Wm. R. .....Duluth
§ Baich, V. M. .....Bovey
§ Bakkila, H. E. .....Duluth
§ Bardon, Richard .....Duluth
§ Barker, J. D. .....Duluth
Barney, L. A. .....Duluth
§ Barrett, E. E. .....Duluth
§ Becker, F. T. .....Duluth
§ Benell, O. E. .....Virginia
Bepko, Marie K. .....Cloquet
Berdez, G. L. .....Duluth
§ Bergan, R. O. .....Duluth
§ Bianco, A. J., Jr. .....Duluth
Bianco, A. J. .....Duluth
† Binet, H. E. .....Grand Rapids
§ Blackmore, S. C. .....Biwabik
Bolz, J. A. .....Grand Rapids
Boman, P. G. .....Duluth
§ Booren, J. C. .....Duluth
§ Bowen, R. L. .....Hibbing
† Boyer, S. H. .....Duluth
§ Boyer, S. H., Jr. .....Duluth
§ Braun, O. C. .....Grand Rapids
§ Bray, P. N. .....Duluth
Bray, R. B. .....Rapid City, S. D.
§ Brooker, W. J. .....Duluth
§ Buckley, R. P. .....Duluth
§ Butler, J. K. .....Cloquet
Cantwell, Wm. F. .....International Falls
Chapman, T. L. .....Duluth
Chermak, F. G. .....International Falls
§ Christensen, C. H. .....Duluth
§ Clark, C. L. .....Duluth
Clark, E. A. .....Duluth
§ Clark, I. T. .....Duluth
§ Coll, J. J. .....Duluth
† Collins, A. N. .....Moose Lake
§ Conley, F. W. .....Duluth
§ Coventry, Wm. A. .....Duluth
§ Coventry, Wm. D. .....Duluth
Detjen, E. D. .....Bigfork
Doyle, G. C. .....Duluth
§ Eckman, P. F. .....Duluth
§ Eckman, R. J. .....Duluth
§ Ekblad, J. Wm. .....Duluth
Eklund, C. D. .....Brookston
§ Elias, Frank J. .....Duluth
§ Emanuel, Karl Wm. .....Duluth
Eppard, R. M. .....Cloquet
§ Estrem, T. A. .....Hibbing
§ Ewens, H. B. .....Virginia
§ Fawcett, K. R. .....Duluth
§ Fellows, M. F. .....Duluth
§ Fischer, M. McC. .....Duluth
§ Fisketti, Henry .....Duluth
§ Flynn, Bernard F. .....Hibbing
Fortier, R. G. .....Marble
Fredricks, M. G. .....Duluth
§ Gillespie, M. G. .....Duluth
§ Goldish, D. R. .....Duluth
§ Gowan, L. R. .....Duluth
§ Graham, A. W. .....Chisholm
§ Grahek, J. P. .....Ely
§ Graves, W. N. .....Duluth
§ Grinley, A. V. .....Grand Rapids
§ Haavik, J. E. .....Duluth
§‡ Halbert, J. J. .....Duluth
§ Halliday, P. V. .....Duluth
Haime, W. B. .....Cloquet
† Haney, Claude L. .....Duluth
§ Hanson, E. O. .....Carlton
Harris, C. N. .....Hibbing
§ Hatch, W. E. .....Duluth
Hayes, M. F. .....Nashwauk
§ Hedberg, G. A. .....Nopeming
Heiam, Wm. C. .....Cook
§ Hilding, A. C. .....Duluth
Hill, F. E. .....Duluth
Hirschboeck, F. J. .....Duluth
§ Hoff, H. O. .....Duluth
§ Houkom, S. S. .....Duluth
Hutchinson, H. .....Moose Lake
§ Jacobson, Clarence .....Chisholm
§ Jacobson, F. C. .....Duluth
§ Jensen, T. I. .....Duluth
§ Jeronimus, H. J. .....Duluth
§ Jessico, C. M. .....Duluth
Joffe, H. H. .....Duluth
§ Johnson, K. E. .....Duluth
§ Johnsrud, L. W. .....Chisholm
§† Johnston, R. O. .....Hibbing
§ Jolin, F. M. .....Bovey
Juntunen, R. R. .....Nashwauk
§ Kelly, A. C. .....Duluth
‡ Keyes, R. W. .....Ely
§ Klein, Harry .....Duluth
§ Klein, Wm. A. .....Duluth
§ Knapp, F. N. .....Duluth
§ Knoll, W. V. .....Duluth
§ Kohlbry, C. O. .....Duluth
§ Koskela, A. L. .....Deer River
Koskela, L. E. .....Deer River
§ Kotchevar, F. R. .....Eveleth
§ Krueger, V. R. .....Nopeming
§ La Bree, R. H. .....Duluth
§ Laird, A. T. .....Duluth
§ Latterell, K. E. .....Duluth
* Lenont, C. B. .....Virginia
Lepak, F. J. .....Duluth
§ Litman, S. N. .....Duluth
§ Lovshin, W. C. .....Eveleth
§ Luth, D. V. .....Duluth
MacDonald, R. A. .....Littlefork
§ MacFarlane, P. H. .....Chisholm
§ MacRae, G. C. .....Duluth
§ Magney, F. H. .....Duluth
Magraw, R. M. .....Saint Paul
§ Malmstrom, J. A. .....Virginia
† Marcley, W. J. .....Minneapolis
§ Martin, W. C. .....Duluth
§ Mayne, R. M. .....Nopeming
† McCarty, P. D. .....Ely
† McCoy, M. K. .....Duluth
McDonald, A. L. .....Duluth
§ McDonald, O. G. .....Duluth
§ McHaffie, O. L. .....Duluth
§ McKenna, M. J. .....Grand Rapids
§ McLeod, J. L. .....Grand Rapids
§ McNutt, J. R. .....Duluth
Mead, C. H. .....Duluth
§ Merriman, L. L. .....Duluth
‡ Meyer, J. O. .....Grand Rapids
§ Minty, E. W. .....Duluth
§ Moe, R. J. .....Duluth
Moe, Thos. .....Moose Lake
§ Moehring, H. G. .....Duluth
Mollers, T. P. .....Soudan
Monroe, P. B. .....Cloquet
Monserud, N. O. .....Cloquet
§ Morsman, L. W. .....Hibbing
Moyer, J. B. .....Duluth
Mueller, S. C. .....Duluth
Munson, M. S. .....Barnum
§ Murray, R. A. .....Hibbing
§ Neff, W. S. .....Virginia
§ Nelson, R. L. .....Virginia
§ Nicholson, M. A. .....Duluth
Norberg, C. E. .....Cloquet
§ Nutting, R. E. .....Duluth
§ Olson, A. E. .....Duluth
Olson, A. O. .....Duluth
§ O'Neill, J. C. .....Duluth
‡ Paciotti, V. J. .....Hibbing
§ Papermaster, Ralph ...Two Harbors
† Parker, O. W. .....Duluth
§ Parker, W. H. .....Chisholm
Parson, E. I. .....Duluth
§ Pasek, A. W. .....Cloquet
‡ Pasek, E. A. .....Cloquet
§ Patch, O. B. .....Duluth
† Pearsall, R. P. .....Virginia
§ Pedersen, R. C. .....Duluth
Pennie, D. F. V. .....Duluth
Peterson, E. N. .....Virginia
§ Peterson, J. H. .....Duluth
§ Power, J. E. .....Duluth
Puumala, R. H. .....Cloquet
§ Raadquist, C. S. .....Hibbing
Raattama, J. W. .....Keewatin
Raihala, John .....Virginia
* Raiter, R. F. .....Cloquet
§ Reed, Paul .....Virginia
† Robinson, J. M. .....Goshen, N. Y.
§ Rokala, H. E. .....Virginia
§† Rood, D. C. .....Duluth
Rowe, O. W. .....Duluth
§ Rudie, P. S. .....Duluth
§ Runquist, J. M. .....Duluth
Ryan, Wm. J. .....Duluth
§ Sach-Rowitz, A. .....Moose Lake
§ Salter, R. A. .....Virginia
Sandell, S. T. .....Nopeming
‡ Sanford, J. B. ...Battle Creek, Mich.
§ Sarff, O. E. .....Duluth
Sax, M. H. .....Duluth
Sax, S. G. .....Duluth
Schirber, M. J. .....Grand Rapids
§ Schmid, J. F. .....Duluth
§ Schneider, L. E. .....Duluth
§ Schroder, C. H. .....Duluth
Schweiger, T. R. .....Hibbing
§ Sher, D. A. .....Virginia
§ Siegel, J. S. .....Virginia
§ Sinamark, Andrew .....Hibbing
Sisler, C. E. .....Grand Rapids
§ Smith, C. M. .....Duluth
Smith, W. R. .....Grand Marais
Snyker, O. E. .....Ely
§ Spang, A. J. .....Duluth
§ Spang, J. S. .....Duluth
§ Strandjord, N. M. .....Virginia
§† Strathern, M. L. .....Gilbert
§ Strauss, E. C. .....Duluth
§ Strewler, G. J. .....Duluth
§ Strobel, Wm. G. .....Duluth
* Stuart, A. B. .....Cloquet

§ Sutherland, H. N. .....Ely
§ Swedberg, Wm. A. .....Duluth
§ Swenson, A. O. .....Duluth
§*†Taylor, C. W. .....Duluth
§ Teich, K. W. .....Duluth
§ Terrell, B. J. .....Nopeming
§‡Tetlie, J. P. ....Camp Carson, Colo.
§*Tibbetts, M. H. .....Duluth
Tingdale, Carlyle .....Hibbing
Tosseland, N. E. .....Duluth
§ Tuohy, E. L. .....Duluth
§ Urberg, S. E. .....Duluth
Van Ryzin, D. J. .....Duluth
§ Van Valkenberg, J. D....Floodwood
§ Walder, H. J. .....Duluth
§†Walker, A. E. .....Duluth
§ Wallace, M. O. .....Duluth
Walter, F. H. ....International Falls
§ Wells, A. H. .....Duluth
§ Wheeler, D. W. .....Duluth
§ Williams, B. F. P. .....Duluth
Winter, J. A. .....Duluth
§ Young, T. O. .....Duluth
*†Zlatovski, M. L. .....Duluth
§ Zupanc, E. A. .....Duluth

SCOTT-CARVER COUNTY MEDICAL SOCIETY

Regular meetings, second Wednesday of each month
Annual meeting, June
Number of Members: 28

President
Simons, B. H. .....Chasta
Secretary
Rynda, E. R. .....New Prague

† Ahrens, C. F. .....Galveston, Texas
Bratholdt, J. W. .....Watertown
Buck, F. H. .....Shakopee
§ Cervenka, C. F. .....New Prague
§ Doherty, E. M. .....New Prague
§ Hebeisen, M. B. .....Chaska
Heinz, Ivy B. .....Shakopee
Heinz, L. H. .....Shakopee
§ Juergens, H. M. .....Belle Plaine
‡ Kline, R. F. .....Montgomery
§ Kortsch, F. P. .....Prior Lake
§ Kucera, S. T. .....Northfield
Martin, T. P. .....Arlington
Nagel, H. D. .....Waconia
Ninneman, N. N. .....Waconia
† Novak, E. E. .....New Prague
Olson, C. J. .....Belle Plaine
§ Pearson, B. F. .....Shakopee
Pogue, R. E. .....Watertown
§ Ponterio, J. E. .....Shakopee
Rieschl, Elizabeth K. .....Jordan
§ Rynda, E. R. .....New Prague
† Sanford, J. A. .....Savage
Schimelpfenig, G. T. .....Chaska
§ Simons, B. H. .....Chaska
Stahler, P. A. .....Jordan
§†Westerman, Alvin ....Montgomery
§ Westerman, F. C. .....Montgomery

SOUTHWESTERN MINNESOTA MEDICAL SOCIETY

Cottonwood, Jackson, Murray, Nobles, Pipestone and Rock Counties
Regular meetings, on call
Annual meeting, on call
Number of Members: 63

President
Pankratz, P. J. .....Mountain Lake
Secretary
Heiberg, O. M. .....Worthington

§ Arnold, E. W. .....Adrian
§ Balmer, A. I. .....Pipestone
§ Basinger, H. P. .....Windom
Basinger, H. R. .....Mountain Lake
§ Beckering, Gerrit .....Edgerton
§ Benjamin, W. G. .....Pipestone
Bofenkamp, F. W. .....Luverne
† Brown, A. H. .....Pipestone
Carlson, J. V. .....Westbrook
§ Christiansen, H. A. .....Jackson
§ Chunn, S. S. .....Pipestone
† De Boer, Hermanus .....Edgerton
§ Doman, V. W. .....Lakefield
Doms, H. C. .....Slayton
Doms, V. A. .....Slayton
§ Gruys, R. I. .....Windom
§ Halfin, R. P. .....Worthington
§ Halloran, W. H. .....Jackson
§ Halpern, D. J. .....Brewster
§ Harrison, P. W. .....Worthington
§ Heiberg, O. M. .....Worthington
Hitchings, W. S. .....Lakefield
§ Hoyer, L. J. .....Windom
§ Hursh, P. W. .....Slayton
§ Johnson, M. A. .....Storden
§ Karleen, B. N. .....Jackson
§ Kilbride, E. A. .....Worthington
Kilbride, J. S. .....Worthington
§ Kotval, R. J. .....Pipestone
Laikola, L. A. .....Adrian
§ Lohmann, J. G. .....Pipestone
Maitland, E. T. .....Jackson
† Manson, F. M. .....Worthington
§ Martin, A. C. .....Luverne
§ Minge, R. K. .....Worthington
§ Nealy, D. E. .....Adrian
§ Nelson, C. A. .....Worthington
Nickerson, J. R. .....Heron Lake
§ Pankratz, P. J. .....Mountain Lake
Patterson, H. D. .....Slayton
Philp, R. D. .....Windom
Pierson, R. F. .....Slayton
§ Piper, W. A. .....Mountain Lake
§ Robinett, R. W. .....Worthington
Rose, J. T. .....Lakefield
§ Schade, F. L. .....Worthington
Schmidt, J. R. .....Mountain Lake
§ Schutz, E. S. .....Mountain Lake
§ Sherman, C. L. .....Luverne
§ Slater, S. A. .....Worthington
§ Sogge, L. L. .....Windom
§ Sorum, F. T. .....Jasper
§ Stam, John .....Worthington
Stanley, C. R. .....Worthington
Stevenson, B. M. .....Fulda
Stratte, H. C. .....Windom
‡ Watkins, J. A. .....Windom
§ Wells, W. B. .....Jackson
§ Williams, C. A. .....Pipestone
Williams, L. A. .....Minneapolis
Williamson, H. A. ....Heron Lake
Wisness, O. A. .....Slayton
Wolff, H. B. .....Worthington

STEARNS-BENTON COUNTY MEDICAL SOCIETY

Regular meetings, third Thursday of month
Annual meeting, third Thursday in December
Number of Members: 66

President
Nessa, C. B. .....St. Cloud
Secretary
Libert, J. N. .....Saint Cloud

§ Anderson, E. M. .....Saint Cloud
Andrews, Bernice F.....Holdingford
§ Baumgartner, F. H. .....Albany
§ Beuning, J. B. .....Saint Cloud
Brigham, C. F., Sr.....Saint Cloud
§ Brigham, C. F., Jr.....Saint Cloud
§ Brimi, R. J. .....Saint Cloud
Broker, H. M. .....Eden Valley
§ Buscher, J. C. .....Saint Cloud
§ Clark, H. B. .....Saint Cloud
Cleaves, W. D. .....Sauk Centre
§ Donaldson, C. S. .....Foley
DuBois, J. F., Jr.....Sauk Centre
DuBois, J. F., Sr. .....Sauk Centre
Engstrom, G. F. .....Belgrade
§ Evans, L. M. .....Sauk Rapids
Fidelman, N. E. .....Foley
§ Fleming, T. N. .....Saint Cloud
§ Friesleben, Wm. .....Sauk Rapids
§ Gaida, J. B. .....Saint Cloud
§ Goehrs, G. H. .....Saint Cloud
Goehrs, H. W. .....Saint Cloud
Grant, J. C. .....Sauk Centre
§ Haberman, Emil .....Osakis
§ Halenbeck, P. L. .....Saint Cloud
† Hemstead, Werner .....Minneapolis
Henry, C. J. .....Milaca
Henry, J. E. .....Milaca
Hoehn, David .....Holdingford
§ Jones, R. N. .....Saint Cloud
§ Kelly, J. F. .....Cold Spring
§ Koop, S. H. .....Richmond
§ Kuhlmann, L. B. .....Melrose
† Lewis, C. B. .....Saint Cloud
§ Libert, J. N. .....Saint Cloud
Lindeman, R. J. .....Paynesville
§ Luckemeyer, C. J. .....Saint Cloud
§ Mahowald, A. .....Albany
§ McDowell, J. P. .....Saint Cloud
Meyer, A. A. .....Melrose
§ Milhaupt, E. N. .....Saint Cloud
§ Musachio, N. F. .....Foley
Myre, C. R. .....Paynesville
§‡Neils, V. E. .....Sauk Rapids
§ Nessa, C. B. .....Saint Cloud
§ O'Keefe, J. P. .....Saint Cloud
§ Petersen, R. T. .....Saint Cloud
§ Phares, O. C. .....Saint Cloud
§ Raetz, S. J. .....Maple Lake
§ Reif, H. J. .....Saint Cloud
§ Richards, W. B. .....Saint Cloud
§ Sandven, N. O. .....Paynesville
Schatz, F. J. .....Saint Cloud
Schmitz, E. J. .....Seattle, Wash.
Sherwood, G. E. .....Kimball
§ Simon, T. R. .....Saint Cloud
§ Sisk, H. E. .....Saint Cloud
Stangl, P. E. .....Saint Cloud
Veranth, L. A. .....Saint Cloud
§ Vrtiska, F. L. .....Saint Cloud
§ Walfred, K. A. .....Saint Cloud
Wedes, Deno J. .....Belgrade
§ Wenner, W. T. .....Saint Cloud
§ Wetzel, E. V. .....Saint Cloud
§ Wittrock, L. H. .....Watkins
Zachman, A. H. .....Melrose

STEELE COUNTY MEDICAL SOCIETY

Regular meetings, every two months
Annual meeting, January
Number of Members: 22

President
Lundquist, C. W. .....Owatonna
Secretary
Osborn, D. O. .....Owatonna
Anderson, F. C. .....Owatonna
Arnesen, J. F. .....Owatonna
Berghs, L. V. .....Owatonna
Dewey, D. H. .....Owatonna
Ertel, E. Q. .....Ellendale
Fischer, J. R. .....Owatonna
Hartung, E. H. .....Claremont
Kurtin, H. J. .....Blooming Prairie
Kurtin, J. J. .....Blooming Prairie
Lundquist, C. W. .....Owatonna
McEnaney, C. T. .....Owatonna
McIntyre, J. A. .....Owatonna
Melby, Benedik ...Blooming Prairie

† Morehead, D. E. .....Owatonna
Nelson, E. J. .....Owatonna
Olson, A. J. .....Owatonna
Osborn, D. O. .....Owatonna
Roberts, O. W. .....Owatonna
Schaefer, J. F. .....Owatonna
Senn, E. W. .....Owatonna
Stransky, T. W. .....Owatonna
Wilkowske, R. J. .....Owatonna

UPPER MISSISSIPPI MEDICAL SOCIETY

Aitkin, Beltrami, Cass, Clearwater, Crow Wing, Hubbard, Koochiching, Lake of the Woods, Morrison, Todd and Wadena Counties
Regular meetings, quarterly
Annual meeting, January
Number of Members: 95

President
Hanover, R. D. .....Little Fork
Secretary
Badeaux, G. I. .....Brainerd

§ Anderson, W. W. .....Brainerd
§ Badeaux, G. I. .....Brainerd
§ Beise, R. A. .....Brainerd
Bender, J. H. .....Brainerd
Borgerson, A. H. .....Long Prairie
Brown, H. M. .....Walker
Cardle, G. E. .....Brainerd
Closuit, F. C. .....Aitkin
Cook, J. M. .....Staples
§ Coombs, C. H. .....Cass Lake
† Corrigan, J. E. .....Minneapolis
Craig, C. C. .....International Falls
§ Crow, E. R. .....Ah-Gwah-Ching
Cushing, R. L. .....Brainerd
Davis, Lloyd T. .....Wadena
§ Davis, Luther E. .....Wadena
Davis, Thos. L., Jr. .....Wadena
DeWeese, W. J. .....Bemidji
Eiler, John .....Park Rapids
§ Erickson, A. O. .....Long Prairie
Fait, R. V. .....Little Falls
Fine, B. A. .....Crosby
Fitzsimons, Wm. E. .....Brainerd
§ Fortier, G. M. A. .....Little Falls
Garlock, A. V. .....Bemidji
Garlock, D. W. .....Bemidji
Ghostley, Mary C. .....Puposky
† Gilmore, Rowland .....Crookston
† Grogan, John S. .....Wadena
Groschupf, T. P. .....Bemidji
Grose, F. N. .....Clarissa
§ Hanover, R. D. .....Little Fork
Hartjen, J. K. .....Bemidji
Healy, R. T. .....Pierz
Hendricks, E. J. .....Saint Paul
Higgs, W. W. .....Park Rapids
Hill, W. C. .....Ann Arbor, Mich.
‡ Hoganson, D. E. .Camp Rucker, Ala.
† House, Z. E. .....Burbank, Calif.
Houston, D. M. .....Park Rapids
Hubbard, O. E. .....Brainerd
† Johnson, C. E. .....Saint Paul
Johnson, D. L. .....Little Falls
Johnson, E. W. .....Bemidji
Johnson, K. J. .....Bemidji
§ Kanne, E. R. .....Brainerd
§ Kinports, E. B. ..International Falls
§ Knight, E. G. .....Swanville
Larson, L. J. .....Bagley
Laughlin, J. T. .....Grey Eagle
Lee, Hubert W. .....Brainerd
Leggett, Elizabeth....Ah-Gwah-Ching
§ Lenarz, A. J. .....Browerville
Longfellow, Helen W. ....Brainerd
Lund, W. J. .....Staples
§ Marshall, C. M. .....Crosby
McCann, D. F. .....Bemidji
‡ McGeary, M. D. ....Oceanside, Calif.
§ Mitby, Irving L. .....Minneapolis
§ Mosby, M. E. .....Long Prairie
§ Mulligan, A. M. .....Brainerd
Nelson, Bernette G. .....Menahga
Nelson, Bernice A. .....Menahga
Nelson, N. P. .....Minneapolis
§ Nixon, J. B. .....Crosby
Olson, Lillian A. ...Ah-Gwah-Ching
Palmer, H. A. .....Blackduck
Parker, C. W. .....Wadena
§ Parker, W. E. .....Sebeka
Petraborg, H. T. .....Aitkin
Pierce, C. H. .....Wadena
Pierce, R. B. .....Wadena
Potek, David ....International Falls
§ Quanstrom, V. E. .....Brainerd
*†Ratcliffe, J. J. .....Aitkin
Ringle, O. F. .....Walker
§ Rozycki, A. T. .....Pine River
Rutherford, W. C. .....Brainerd
§ Schmitz, G. P. .....Little Falls
Simons, E. J. .....Minneapolis
§ Stein, R. J. .....Pierz
Stoy, R. A. .....Little Falls
† Thabes, J. A., Sr. .....Brainerd
§ Thabes, J. A., Jr. .....Brainerd
Vandersluis, C. W. .....Bemidji
§ Watson, A. M. .....Royalton
Watson, Percy T. .....Minneapolis
Watson, S. W. .....Royalton
Whittemore, D. D. .....Bemidji
Wikoff, H. M. .....Bemidji
§ Will, C. B. .....Bertha
§ Will, W. W. .....Bertha
Williams, M. M. ...Ah-Gwah-Ching
§ Wingquist, C. G. .....Crosby
Zeigler, C. M. .....Pine River

WABASHA COUNTY MEDICAL SOCIETY

Annual meeting, first Thursday after the first Monday in October
Other meetings as called by the President
Number of Members: 16

President
Gjerde, Wm. P. .....Lake City
Secretary
Wilson, W. F. .....Lake City

§ Bayley, E. C. .....Lake City
§ Bouquet, B. J. .....Wabasha
§ Bowers, R. N. .....Lake City
Collins, J. S. .....Wabasha
§ Ekstrand, L. M. .....Wabasha
§ Ellis, E. W. .....Elgin
§ Flesche, B. A. .....Lake City
§ Gjerde, W. P. .....Lake City
Glabe, R. A. .....Plainview
§ Mahle, D. G. .....Plainview
Martin, D. A. .....Wabasha
§ Ochsner, C. G. .....Wabasha
† Replogle, W. H...Los Angeles, Calif.
‡ Vaughn, C. G. .....
Ft. Leonard Wood, Mo.
Wellman, T. G. .....Clinton, Iowa
† Wilson, W. F. .....Lake City

WASECA COUNTY MEDICAL SOCIETY

Regular meetings, as decided
Annual meeting, January
Number of Members: 10

President
Oeljen, S. C. G. .....Waseca
Secretary
Ourada, A. L. .....Waseca

§ Davis, R. D. .....Waseca
§†Gallagher, B. J. .....Waseca
‡ Gallagher, W. B. ..Vienna, Austria
§ Hottinger, R. C. .....Janesville
§ McIntire, H. M. .....Waseca
§ Oeljen, S. C. G. .....Waseca
§ Olds, G. H. .....New Richland
§ Ourada, A. L. .....Waseca
§ Swenson, O. J. .....Waseca
§ Ward, C. T. .....Janesville

WASHINGTON COUNTY MEDICAL SOCIETY

Regular meetings, second Tuesday in each month
Annual meeting, second Tuesday in December
Number of Members: 10

President
Ruggles, G. M. .....Forest Lake
Secretary
Boleyn, E. S. .....Stillwater

§ Boleyn, E. S. .....Stillwater
Burseth, E. C. .....Forest Lake
§ Carlson, R. E. .....Stillwater
§†Haines, J. H. .....Stillwater
§ Holcomb, J. T. ..Marine-on-St.Croix
Humphrey, W. R. .....Stillwater
§ Jenson, J. E. .....Stillwater
§ Johnson, R. G. .....Stillwater
Josewski, R. J. .....Stillwater
§ Juergens, M. F. .....Stillwater
§ McCarten, F. M. .....Stillwater
Poirier, J. A. .....Forest Lake
Ruggles, G. M. .....Forest Lake
§ Sherman, C. H. .....Bayport
§ Stuhr, J. W. .....Stillwater
Van Meier, Henry. .....Stillwater

WEST CENTRAL MINNESOTA MEDICAL SOCIETY

Big Stone, Pope, Stevens, and Traverse Counties
Regular meetings, first Wednesday in March, May, September and November
Annual meeting, first Wednesday in November
Number of Members: 33

President
Barrett, G. L. .....Graceville
Secretary
Gericke, J. T. .....Glenwood

§ Arneson, A. I. .....Morris
§ Barnett, G. L. .....Graceville
§ Behmler, F. W. .....Morris
§ Bergan, Otto .....Clinton
† Bolsta, Charles .....Ortonville
§ Bucher, F. D. .....Starbuck
Dahle, M. B. .....Olivia
§†Eberlin, E. A. .....Glenwood
§ Eide, O. A. .....Hancock
§ Elsey, E. M. .....Glenwood

† Elsey, J. R. .....Glenwood
† Fitzgerald, E. T. .....Morris
§ Gericke, J. T. .....Glenwood
§ Giesen, A. F. .....Starbuck
Hedemark, H. H. .....Ortonville
Hedermark, T. A. .....Ortonville
§ Karn, J. F. .....Ortonville
§ Kooda, J. C. .....Morris
§ Lindberg, A. L. .....Wheaton
§† Linde, Herman .....Cyrus
§ Magnuson, A. E. .....Wheaton
McIver, B. A. .....Lowry
§ Merrill, R. W. .....Morris
Muir, W. F. .....Browns Valley
Noble, J. H. .....Graceville
§ O'Donnell, D. M. .....Ortonville
§ Oliver, I. L. .....Graceville
§ Plasha, M. K. .....Glenwood
† Ransom, M. L. .....Hancock
§ Rossberg, R. A. .....Morris
§ Salk, R. J. .....Herman
§ Swedenburg, P. A. .....Glenwood
§ Wagner, N. W. .....Graceville

WINONA COUNTY MEDICAL SOCIETY

Regular meeting, first Monday in January, April, July and October
Annual meeting in January
Number of Members: 33

President
Heise, Paul .....Winona

Secretary
Schmidt, H. R. .....Winona

Benoit, F. T. .....Winona
Blochowiak, N. P. .....Rushford
§ Boardman, D. V. .....Winona
§ Christensen, E. E. .....Winona
Finkelnburg, W. O. .....Winona
§ Hartwich, R. F. .....Winona
Heise, Carl v R. .....Winona
§ Heise, Paul .....Winona
Heise, Philip .....Winona
§† Heise, W. F. C. .....Winona
§ Heise, W. v R. .....Winona
§ Johnston, L. F. .....Winona
§ Keyes, J. D. .....Winona
§ Loomis, G. L. .....Winona
§ Mattison, P. A. .....Winona
McLaughlin, E. M. .....Winona
§ Meinert, A. E. .....Winona
Neumann, C. A. .....Lewiston
§ Page, R. L. .....St. Charles
§† Robbins, C. P. .....Winona
§ Roemer, H. J. .....Winona
§ Rogers, C. W. .....Winona
§ Satterlee, H. W. .....Lewiston
Schaefer, Samuel .....Winona
§ Schmidt, H. R. .....Winona
§ Steiner, I. W. .....Winona
§† Tweedy, G. J. .....Winona
§ Tweedy, J. A. .....Winona
§ Tweedy, R. B. .....Winona
§ Vollmer, F. J. .....Winona
§ Wilson, R. H. .....Winona
§ Woltjen, M. J. .....Rushford
§ Younger, L. I. .....Winona

WRIGHT COUNTY MEDICAL SOCIETY

Regular meetings, not scheduled
Annual meeting, October
Number of Members: 18

President
W. E. Hall .....Maple Lake

Secretary
Catlin, T. J. .....Buffalo

§ Anderson, W. P. .....Buffalo
§ Bendix, L. H. .....Annandale
§† Catlin, J. J. .....Buffalo
§ Catlin, T. J. .....Buffalo
§ Ellison, F. E. .....Monticello
§ Greenfield, W. T. .....Delano
Grundset, O. J. .....Montrose
Guilfoile, P. J. .....Delano
§ Hall, W. E. .....Maple Lake
§ Hart, W. E. .....Monticello
Peterson, O. L. .....Cokato
§† Ridgway, A. M. .....Annandale
§ Roholt, C. L. .....Waverly
§ Ryding, Vincent T. ..Dallas, Texas
Smorszczok, M. .....Monticello
§ Thielen, R. D. .....Saint Michael
Thomas, William H. ....Howard Lake
§ Thompson, Arthur .....Cokato

Alphabetic Roster

Key to Symbols: *Deceased; †Affiliate, Associate or Life Member; ‡In Service

Aagaard, G. N., Jr. ....Minneapolis
Aanes, A. M. ....Red Wing
† Aborn, W. H. ....Hawley
Abraham, A. L. ....Duluth
Abramson, Milton ....Minneapolis
Achor, R. W. P. ....Rochester
Adair, A. F., Jr. ....Saint Paul
Adams, B. S. ....Hibbing
Adams, F. H. ....Minneapolis
Adams, R. C. ....Rochester
Addy, E. R. ....Gilbert
† Adkins, C. D. ....Minneapolis
† Adkins, C. M. ...Thief River Falls
Adkins, G. H. ....Faribault
Adson, A. W. ....Rochester
Affeldt, D. E. ....Kasson
‡ Aga, John ....Mankato
Agustsson, Hreidar ....Minneapolis
Ahren, E. E. ....Minneapolis
Ahlfs, J. J. ....Caledonia
Ahrens, A. H. ....Saint Paul
Ahrens, A. E. ....Saint Paul
† Ahrens, C. F. ....Galveston, Texas
Ahrens, R. M. ....Saint Paul
† Aitkens, H. B. ....Le Center
Akester, Ward ....Fergus Falls
Akins, W. M. ....Red Wing
Albrecht, H. H. ....Chisago City
Alcorn, Wm. J. ....Wabasso
† Alden, J. F., Jr. ....Saint Paul
Aldrich, R. A. ....Rochester
Alexander, H. A. ....Minneapolis
Alger, E. W. ....Minneapolis
Aling, C. A. ....Minneapolis
Allen, E. V. N. ....Rochester
Altnow, H. O. ....Minneapolis
† Amberg, Saml. ....Rochester
Andersen, H. A. ....Rochester
Andersen, S. C. ....Minneapolis
Anderson, A. D. ....Rochester
Anderson, A. S. ....Minneapolis
Anderson, C. D. ....Chicago, Ill.
Anderson, Chester A. ....Madison
Anderson, Chester A. ....Hector
Anderson, D. D. ....Minneapolis
Anderson, D. P., Jr. ....Austin
Anderson, D. M. ...Fargo, No. Dak.
Anderson, D. C. ....Olivia
Anderson, E. D. ....Minneapolis
Anderson, E. M. ....Saint Cloud
Anderson, E. R. ....Minneapolis
‡ Anderson, Frank J. ....Fort Leavenworth, Kan.
Anderson, F. C. ....Owatonna
Anderson, H. J. ....Austin
Anderson, J. J. ....Mankato
Anderson, K. W. ....Minneapolis
Anderson, M. J. ....Rochester
Anderson, M. W. ....Rochester
Anderson, R. E. ....Willmar
Anderson, S. H. ....Red Wing
Anderson, T. P. ....Rochester
Anderson, U. S. ....Minneapolis
Anderson, W. P. ....Buffalo
Anderson, W. E. ....Clearbrook
Anderson, W. W. ....Brainerd
Anderson, Wm. H. ....Minneapolis
Anderson, Wm. T. ....Minneapolis
Andreassen, E. C. ....Saint Paul
Andrejek, A. R. ....Minneapolis
Andresen, K. D'A ....Minneapolis
Andrews, B. F. ....Holdingford
Andrews, R. S. ....Minneapolis
Andrews, R. N. ....Mankato
Ankner, F. J. ....Minneapolis
Arata, J. E. ....Rochester
Arends, A. L. ....Cokato
Arey, S. L. ....Minneapolis
† Arhelger, Stuart ....Minneapolis
Arko, J. L. ....Hibbing
Arlander, C. E. ....Minneapolis
Arling, L. S. ....Minneapolis
* Armstrong, E. L. ....Duluth
Armstrong, R. S. ....Winnebago
Arndt, H. Wm. ....Detroit Lakes
Arnesen, J. F. ....Owatonna
Arneson, A. I. ....Morris
Arnold, Anna W. ....Minneapolis
* Arnold, D. C. ....Minneapolis
Arnold, E. Wm. ....Adrian
Arnquist, A. S. ....Saint Paul
Arnson, J. M. ....Benson
Arny, F. P. ....Saint Paul
Arvidson, C. G. ....Minneapolis
Arzt, P. K. ....Saint Paul
Athens, A. G. ....Duluth
Atmore, Wm. G. ....Rochester
† Aune, Martin ....Minneapolis
† Aurand, Wm. H. ....Minneapolis
Aurelius, J. R. ....Saint Paul
† Ausman, C. F. ...South Saint Paul
Ausman, D. R. ....Saint Paul
Austin, G. W. ....Memphis, Tenn.
Ayres, R. W. ....Little Rock, Ark.

Babb, F. S. ....Saint Paul
Bachnik, F. W. ....Hibbing
Backus, R. W. ....Nopeming
Bacon, D. K. ....Saint Paul
Badeaux, George I. ....Brainerd
Bagby, G. W. ....Rochester
Baggenstoss, A. H. ....Rochester
Bagley, C. M. ....Duluth
Bagley, Elizabeth C. ....Duluth
Bagley, Wm. R. ....Duluth
Bahn, R. C. ....Rochester
Baich, V. M. ....Bovey
Bain, R. C. ....Rochester
Bair, H. L. ....Rochester
Baird, J. W. ....Minneapolis
Baken, M. P. ....Minneapolis
Baker, A. B. ....Minneapolis
Baker, A. T. ....Minneapolis
Baker, A. C. ....Fergus Falls
* Baker, E. L. ....Minneapolis
Baker, G. S. ....Rochester
Baker, H. R. ....Hayfield
Baker, Jeannette L. ....Fergus Falls
† Baker, Looe ....Minneapolis
Baker, M. E. ....Minneapolis
Baker, N. H. ....Fergus Falls
Baker, P. L. ....Rochester
Baker, R. L. ....Hayfield
Bakkila, H. E. ....Duluth
Balcome, M. M. ....Saint Paul
† Balfour, D. C. ....Rochester
Balfour, Wm. M. ....Rochester
Balkin, S. G. ....Minneapolis
Ball, W. P. ....Muncie, Ind.
Balmer, A. I. ....Pipestone
Bank, H. E. ....Portland, Ore
Banner, E. A. ....Rochester
Bannon, Wm. G. ....Rochester
*† Barber, J. P. ....Minneapolis
Barber, John R. ....Rochester
Barber, T. E. ....Austin
Bardon, Richard ....Duluth
Bargen, J. A. ....Rochester
Barker, J. D. ....Duluth
Barker, N. W. ....Rochester
Barnes, A. R. ....Rochester
Barnett, J. M. ....Saint Paul
Barnett, G. L. ....Graceville
Barney, L. A. ....Duluth
Barno, Alex ....Minneapolis
Baronofsky, I. D. ....Minneapolis
Barr, L. C. ....Albert Lea
Barr, M. M. ....Minneapolis
Barr, R. N. ....Saint Paul
Barr, Wm. H. ....Wells
Barrett, E. E. ....Duluth
‡ Barron, J. J. ...Camp McCoy, Wis.
Barron, Moses ....Minneapolis
Barron, S. S. ....Minneapolis
Barry, L. W. ....Saint Paul
† Barsness, Nellie O. N. ..Saint Paul
Bartholomew, L. G. ....Rochester
Basinger, H. R. ....Mountain Lake
Basinger, H. P. ....Windom
Baskin, R. H. ....Rochester
Bastron, J. A. ....Rochester
Batdorf, B. N. ....Good Thunder
Bauer, E. L. ....Saint Paul
Baumgartner, F. H. ....Albany
† Baxter, S. H. ....Minneapolis
Bayley, E. C. ....Lake City
Bayard, E. D. ....Rochester
Beach, Northrup ....Minneapolis
Beahrs, O. H. ....Rochester
† Beals, Hugh ....Saint Paul
† Beard, A. H. ....Wayzata
Beard, E. F. ....Rochester
† Becker, A. M. ....Minneapolis
Becker, F. T. ....Duluth
Becker, S. Wm., Jr. ....Rochester
Beckering, Gerrit ....Edgerton
Bedford, E. Wm. ....Minneapolis
Beech, R. H. ....Saint Paul
Beek, Harvey O. ....Saint Paul
Beer, J. J. ....Saint Paul
Begley, J. W. ....Rochester
‡ Behling, F. L. ....Moorhead
Behmler, F. W. ....Morris
Behr, O. K. ....Crookston
Beirstein, Saml. ....Minneapolis
Beise, R. A. ....Brainerd
Beiswanger, R. H. ....Minneapolis
Belding, III, H. H. ....Rochester
Bell, C. C. ....Saint Paul
† Bell, E. T. ....Minneapolis
Bellegie, N. J. ....Rochester
Bellomo, James ....Saint Paul
Bellville, T. P. ....Minneapolis
Bender, J. H. ....Brainerd
Bender, L. F. ....Rochester
Bendix, L. H. ....Annandale
Benedict, W. H. ....Rochester
Benedict, Wm. L. ....Rochester
Benell, O. E. ....Virginia
Benepe, J. L. ....Saint Paul
Benesh, L. A. ....Minneapolis
† Benjamin, A. E. ....Minneapolis
Benjamin, E. G. ....Minneapolis
Benjamin, H. G. ....Minneapolis
Benjamin, W. G. ....Pipestone
*† Benn, F. G. ....La Mesa, Calif.
Bennett, H. S. ....Cleveland, O.
Bennett, W. A. ....Rochester
† Bennion, P. H. ....Isway, Mont.
Benoit, F. T. ....Winona
‡ Benson, L. M. ..Camp Rucker, Ala.
Bentley, N. P. ....Saint Paul
Benton, P. C. ....Minneapolis
Benua, R. S. ....Rochester
Benz, E. J. ....Rochester
Bepko, Marie K. ....Cloquet
Berdez, G. L. ....Duluth
Berens, James ....Rochester
Berg, C. C. ....Excelsior
Bergan, Otto ....Clinton
Bergan, R. O. ....Duluth
Berge, D. O. ....Roseau
Berge, H. L. ....Mora
Berger, A. G. ....Minneapolis
Bergh, G. S. ....Minneapolis
Bergh, S. M. ....Minneapolis
Berghs, L. V. ....Owatonna
Bergman, O. B. ....Saint James
Bergquist, K. E. ....Battle Lake
Berkman, D. M. ....Rochester
Berkman, J. M. ....Rochester
Berkwitz, N. J. ....Minneapolis
Berlin, A. S. ....Hallock
Berman, Reuben ....Minneapolis
Bernatz, P. E. ....Rochester
Bernstein, Wm. C. ....Minneapolis
Bessesen, A. N., Jr. ....Minneapolis
Bessesen, D. H. ....Minneapolis
Bessesen, Wm. A. ....Minneapolis
Beuning, J. B. ....Saint Cloud
Beyer, E. F. ....Braham
Bianco, Anthony J., Jr. ....Duluth
Bianco, A. J. ....Duluth
Bicek, J. F. ....Saint Paul
Bickel, Wm. H. ....Rochester
† Biedermann, Jacob. Thief River Falls
Bieter, R. N. ....Minneapolis
Bigelow, C. E. ....Dodge Center
Bigler, E. E. ....Perham
Bigler, I. E. ....Perham
Bilka, P. J. ....Minneapolis
Billings, R. E. ....Franklin
Binder, M. R. ....Minneapolis
† Binet, H. E. ....Grand Rapids
† Binger, H. E. ....Phoenix, Ariz.
Black, B. M. ....Rochester
Black, E. J. ....Saint Paul
Black, Wm. A. ....New Ulm
Blackburn, C. M. ....Rochester
Blackmore, S. C. ....Biwabik
Blake, A. J. ....Hopkins

† Blake, James ..... Hopkins
Blake, J. A. ..... Hopkins
† Blake, P. S. ..... Hopkins
† Blakey, A. R. ..... Osakis
Blochowiak, N. P. ..... Rushford
Block, M. A. ..... Rochester
Block, Wm. J., Jr. ..... Rochester
Bloedel, T. J. G. ..... Osseo
* Bloemendaal, E. J. G. ..... Lake Park
Blomberg, Wm. R. ..... Princeton
Bloom, N. B. ..... Minneapolis
Blumberg, H. B. ..... Fairmont
Blumenthal, J. S. ..... Minneapolis
Boardman, D. V. ..... Winona
Bock, R. A. ..... Saint Paul
Bockman, M. W. H. ..... Minneapolis
Bodaski, A. A. ..... Le Center
‡ Bodelson, A. H. ..... Pensacola, Fla.
† Boeckmann, Egil ..... Saint Paul
Boehrer, J. J., Jr. ..... Minneapolis
Bofenkamp, Benj. ..... Minneapolis
Bofenkamp, F. Wm. ..... Luverne
Bohn, D. G. ..... Minneapolis
Boies, L. R. ..... Minneapolis
Bolender, H. L. ..... Saint Paul
Boleyn, E. S. ..... Stillwater
Boline, C. A. ..... Battle Lake
† Bolsta, Chas. ..... Ortonville
Bolz, J. A. ..... Grand Rapids
Boman, P. G. ..... Duluth
Boody, G. J., Jr. ..... Dawson
Booren, J. C. ..... Duluth
† Booth, A. E. ..... Minneapolis
† Boothby, W. M.
Randolph Field, Texas
Borden, C. W. ..... Minneapolis
Boreen, C. A. ..... Minneapolis
Borg, J. F. ..... Saint Paul
Borgerson, A. H. ..... Long Prairie
Borgeson, E. J. ..... Minneapolis
Borman, C. N. ..... Minneapolis
Bosland, H. G. ..... Willmar
Bossert, C. S. ..... Mora
Bostwick, J. L. ..... Rochester
Boswell, J. T. ..... Wanamingo
Bottolfson, B. T. ..... Moorhead
Boucek, R. J. ..... Rochester
† Bouma, L. R. ..... Saint Paul
Bouquet, B. J. ..... Wabasha
Bowen, R. L. ..... Hibbing
Bowers, G. G. ..... Minneapolis
Bowers, R. N. ..... Lake City
Boyd, D. A., Jr. ..... Rochester
Boyd, L. M. ..... Alexandria
Boyer, G. S. ..... Crookston
† Boyer, Saml. H. ..... Duluth
Boyer, Saml. H., Jr. ..... Duluth
Boynton, Bruce ..... Ada
Boynton, Ruth F. ..... Minneapolis
Boysen, Herbert ..... Madelia
† Boysen, Peter ..... Bemidji
Braasch, J. W. ..... Rochester
† Braasch, Wm. E. ..... Rochester
Braceland, F. J. ..... Rochester
Brand, Geo. D. ..... Saint Paul
† Brand, Wm. A. ..... Redwood Falls
Brandenburg, R. O. ..... Rochester
Branham, D. S. ..... St. Peter
Bratholdt, J. W. ..... Watertown
Bratrud, A. F. ..... Minneapolis
† Bratrud, Edward ..Thief River Falls
Bratrud, Theo. E. ..Thief River Falls
Bratrude, E. J. ..... St. James
Braun, O. C. ..... Grand Rapids
Bray, E. R. ..... Saint Paul
Bray, P. N. ..... Duluth
Bray, R. B. ..... Rapid City, S. D.
Bregel, F. L. ..... St. James
† Breitenbucher, R. B. ...Minneapolis
Brekke, H. J. ..... Minneapolis
Bresette, J. E. ..... Rochester
Brickley, P. M. ..... Rochester
Briggs, J. F. ..... Saint Paul
Brigham, C. F. ..... St. Cloud
Brigham, C. F., Jr. ..... St. Cloud
Brill, Alice K. ..... Minneapolis
Brimi, R. J. ..... St. Cloud
Brindley, C. O. ..... Rochester
Brink, A. A. ..... Baudette
Brink, D. M. ..... Hutchinson
Broadie, T. E. ..... Saint Paul
Broders, A. C. ..... Temple, Texas
Brodie, W. D. ..... Saint Paul
Broker, H. M. ..... Eden Valley
Brooker, W. J. ..... Duluth
Brooks, C. N. ..... Minneapolis
Brotchner, R. J. ..... Saint Paul
† Brown, A. H. ..... Pipestone
† Brown, E. D. ..... Paynesville
Brown, H. A. ..... Rochester
Brown, H. M. ..... Walker
† Brown, J. C. ..... Saint Paul
Brown, J. R. ..... Rochester
Brown, P. W. ..... Rochester
Brown, Wm. D. ..... Minneapolis

Bruhl, H. H. ..... Faribault
Brunsting, L. A. ..... Rochester
Brusegard, J. F. ..... Red Wing
Brutsch, G. C. ..... Minneapolis
Brzustowicz, R. J. ..... Rochester
Bucher, F. D. ..... Starbuck
Buchstein, H. F. ..... Minneapolis
Buck, F. H. ..... Shakopee
Buckley, R. P. ..... Duluth
Buesgens, R. H. ..... Waterville
Buie, L. A. ..... Rochester
Buirge, R. E. ..... Minneapolis
Bulinski, T. J. ..... Saint Paul
Bulkley, Kenneth ..... Minneapolis
Bunker, B. W. ..... Anoka
Burch, E. P., II ..... Saint Paul
† Burch, F. E. ..... Saint Paul
Burchell, H. B. ..... Rochester
‡ Burgert, E. O., Jr.
Ft. Sam, Houston, Texas
Burgess, H. M. ..... Rochester
Burke, E. C. ..... Rochester
Burklund, E. C. ..... Saint Paul
Burlingame, D. A. ..... Saint Paul
Burmeister, R. O. ..... Saint Paul
* Burnap, W. L. ..... Fergus Falls
Burnham, W. H. ..... Minneapolis
Burns, Catherine ..... Albert Lea
Burns, F. M. ..... Milan
Burns, M. A. ..... Milan
Burns, R. M. ..... Saint Paul
Burseth, E. C. ..... Forest Lake
Burton, C. G. ..... Saint Paul
Buscher, J. C. ..... St. Cloud
Bush, R. P. ..... Saint Paul
Bushard, W. J. ..... Minneapolis
Busher, H. H. ..... Saint Paul
Butcher, Wm. A. ..... Rochester
Butin, J. W. ..... Rochester
Butler, D. B. ..... Houston, Tex.
Butler, J. K. ..... Cloquet
Butt, Hugh R. ..... Rochester
Butturff, C. R. ..... Freeborn
Butzer, J. A. ..... Mankato
Buzzelle, L. K. ..... Minneapolis

Cable, M. L. ..... Minneapolis
Cabot, C. M. ..... Minneapolis
Cabot, V. S. ..... Minneapolis
Cady, L. H. ..... Minneapolis
Cain, C. L. ..... Saint Paul
Cain, J. C. ..... Rochester
Cain, J. H. ..... Hoffman
Cairns, R. J. ..... Redwood Falls
† Calhoun, F. W. ..... Albert Lea
Callahan, F. F. ..... Saint Paul
Cameron, I. L. ..... Minneapolis
Cameron, J. H. ..... Crookston
Camp, J. D. ..... Rochester
Campbell, D. C. ..... Rochester
Campbell, L. M. ..... Minneapolis
Campbell, O. J. ..... Minneapolis
Canfield, W. W. ..... St. Peter
Cantwell, Wm. F. International Falls
Caplan, Leslie ..... Minneapolis
Card, Wm. H. ..... Minneapolis
* Cardle, A. E. ..... Minneapolis
Cardle, G. E. ..... Brainerd
Carey, J. B. ..... Minneapolis
Carey, J. M. ..... Rochester
Carlander, L. W., Jr. ..Minneapolis
Carley, W. A. ..... Saint Paul
Carlisle, J. C. ..... Rochester
Carlson, A. E. ..... Warren
Carlson, C. E. ..... Alexandria
Carlson, J. V. ..... Westbrook
Carlson, Lawrence ..... Minneapolis
Carlson, L. T. ..... Minneapolis
Carlson, R. E. ..... Stillwater
Caron, R. P. ..... Minneapolis
Carr, David T. ..... Rochester
Carroll, T. T. ..... Rochester
Carroll, Wm. C. ..... Saint Paul
Carryer, H. M. ..... Rochester
Cashin, J. C. ..... Adams, Mass.
Caspers, C. G. ..... Minneapolis
† Catlin, J. J. ..... Buffalo
Catlin, T. J. ..... Buffalo
Cavanor, F. T. ..... Minneapolis
Cedarleaf, C. B. ..... Detroit Lakes
Ceder, E. T. ..... Minneapolis
Ceplecha, S. F. ..... Redwood Falls
Cervenka, C. F. ..... New Prague
Chadbourn, C. R. ..... Saint Paul
Chadbourn, W. A. ..... Litchfield
Chalgren, Wm. S. ..... Mankato
Challman, S. A. ..... Minneapolis
Chambers, W. C. ..... Blue Earth
Chance, D. P. ..... Rochester
Chapman, C. B. ..... Minneapolis
Chapman, T. L. ..... Duluth
Chatterton, C. C. ..... Saint Paul
Chermak, F. G. ..International Falls

Chesley, A. J. ..... Saint Paul
Childs, D. S., Jr. ..... Rochester
Chisholm, T. C. ..... Minneapolis
Chriss, John W. ..... Rochester
Christensen, C. H. ..... Duluth
Christensen, E. E. ..... Winona
Christensen, L. E. ..... Minneapolis
Christensen, N. A. ..... Rochester
Christiansen, A. ..... Saint Paul
Christiansen, H. A. ..... Jackson
Christianson, H. W. ..... Minneapolis
Christie, D. P. ..... Rochester
Christoferson, L. A. ..Fargo, N. D.
Chunn, S. S. ..... Pipestone
Clagett, O. T. ..... Rochester
Clark, C. L. ..... Duluth
Clark, Elizabeth A. ..... Duluth
Clark, H. B. ..... St. Cloud
Clark, H. B., Jr. ..... Minneapolis
Clark, I. T. ..... Duluth
Clark, L. Wm. ..... Spring Valley
Clark, III, P. L. ..... Rochester
Clarke, E. K. ..... Minneapolis
Clay, L. B. ..... Minneapolis
Claydon, H. F. ..... Red Wing
Cleaves, Wm. D. ..... Sauk Centre
† Clement, J. B. ..... Lester Prairie
Clifford, G. W. ..... Alexandria
Clifton, T. A. ..... Chatfield
Closuit, F. C. ..... Aitkin
Clothier, E. F. ..... Elk River
Cochrane, B. B. ..... Saint Paul
Cochrane, R. F. ..... Minneapolis
Coddon, W. D. ..... Saint Paul
Coe, John I. ..... Minneapolis
Coheh, B. A. ..... Minneapolis
Cohen, E. B. ..... Minneapolis
Cohen, Ellis N. ..... Newton, Mass.
Cohen, M. M. ..... Minneapolis
Cohen, S. S. ..... Oak Terrace
Colby, W. L. ..... Saint Paul
Cole, J. P. ..... Rochester
Cole, W. H. ..... Saint Paul
Coll, J. J. ..... Duluth
† Collie, H. G. ..St. Petersburg, Fla.
† Collins, A. N. ..... Moose Lake
Collins, J. S. ..... Wabasha
Colp, E. A. ..... Minneapolis
Combacker, L. C. ..... Fergus Falls
Comfort, M. W. ..... Rochester
Condit, Wm. H. ..... Minneapolis
Conley, F. W. ..... Duluth
Conley, R. H. ..... Mankato
Connolly, C. J. ..... Saint Paul
Connor, C. E. ..... Saint Paul
Cook, C. K. ..... Saint Paul
Cook, J. R. ..... Rochester
Cook, J. M. ..... Staples
Coombs, C. H. ..... Cass Lake
Cooley, J. C. ..... Rochester
Cooper, C. C. ..... Saint Paul
Cooper, I. S. ....New York, N. Y.
Cooper, J. P. ..... Excelsior
Cooper, M. D. ..... Winnebago
† Corbett, J. F. ..... Minneapolis
Corbin, K. B. ..... Rochester
Corniea, A. D. ..... Minneapolis
Correa, D. H. ..... Minneapolis
† Corrigan, J. E. ..... Minneapolis
Cosgriff, J. A. ..... Olivia
Cosgriff, J. A., Jr. ..... Olivia
Coulter, H. F. ..... Madelia
Counseller, V. S. ..... Rochester
Countryman, R. S. ..... Saint Paul
Courtin, R. F. ..... Rochester
Covell, W. W. ..... St. Peter
Coventry, M. B. ..... Rochester
Coventry, Wm. A. ..... Duluth
Coventry, Wm. D. ..... Duluth
Covey, K. W. ..... Mahnomen
Cowan, D. W. ..... Minneapolis
* Cowern, E. Wm. ....No. Saint Paul
Craig, C. C. ....International Falls
Craig, D. M. ..... Saint Paul
Craig, M. Elizabeth ....Minneapolis
Craig, W. McK. ..... Rochester
Cranmer, R. R. ..... Minneapolis
Cranston, R. W. ..... Minneapolis
Creevy, C. D. ..... Minneapolis
Creighton, R. H. ..... Minneapolis
Crenshaw, J. L., Jr. ..... Rochester
† Crenshaw, J. L. ..... Sanford, Fla.
Critchfield, L. R. ..... Saint Paul
Crombie, F. J. ..... No. Saint Paul
Cronwell, B. J. ..... Austin
Crow, E. R. ..... Ah-Gwah-Ching
Crowley, J. H. ..... Saint Paul
‡ Crudo, V. D.
Ft. Sam, Houston, Texas
Crump, J. W. ..... Saint Paul
Crumpacker, E. L. ..... Rochester
Culligan, J. M. ..... Saint Paul
Culligan, L. C. ..... Minneapolis
Culp, O. S. ..... Rochester
Culver, L. G. ..... Saint Paul

Cundy, D. T. ..... Minneapolis
Curtis, R. A. ..... Le Center
Curtiss, R. K. ..... Rochester
Cushing, R. L. ..... Brainerd
† Cutts, George ..... Minneapolis

Dady, E. E. ..... Minneapolis
Daehlin, Rolf ..... Fergus Falls
Dahl, E. O. ..... Minneapolis
† Dahl, G. A. ..... Mankato
Dahl, J. A. ..... Minneapolis
Dahle, M. B. ..... Olivia
Dahlin, D. C. ..... Rochester
Dahlstet, J. P. ..... Mankato
† Daignault, Oscar ..... Benson
Dale, L. N. ..... Red Lake Falls
Daly, David ..... Rochester
Danford, K. A. ..... Mahnomen
Daniel, D. H. ..... Minneapolis
† Danielson, K. A. ..... Litchfield
Danielson, L. ..... Litchfield
Dargay, C. P. ..... Minneapolis
• Daugherty, E. B. Marine-on-St. Croix
Daugherty, G. W. ..... Rochester
Davis, A. C. ..... Rochester
Davis, Edw. V. ..... Saint Paul
Davis, Geo. D. ..... Rochester
• Davis, I. G. ..... Rushford
Davis, J. C. ..... Minneapolis
Davis, L. T. ..... Wadena
Davis, L. F. ..... Wadena
Davis, R. D. ..... Waseca
Davis, R. M. ..... Marion, Ind.
Davis, R. E. ..... Rochester
Davis, T. L. ..... Wadena
Davis, Wm. I. ..... Mound
Dawson, J. R. ..... Saint Paul
Day, Lois A. ..... Saint Paul
Dearing, Wm. H., Jr. ..... Rochester
† DeBoer, Hermanus ..... Edgerton
Decker, C. H. ..... Saint Paul
• Dedolph, Karl ..... Saint Paul
† Dedolph, Theo. H. ..... Braham
DeForest, R. E. ..... Rochester
DeKruif, Hendrik ..... Fergus Falls
Delmore, J. L. ..... Roseau
Delmore, J. L., Jr. ..... Roseau
Delmore, R. J. ..... Roseau
Del Plaine, C. W. ..... Minneapolis
Demo, R. A. ..... Albert Lea
Denman, A. V. ..... Mankato
Dennis, Clarence ..... Minneapolis
Derauf, B. I. ..... Saint Paul
Deters, D. C. ..... Saint Paul
Detjen, E. D. ..... Bigfork
Devereaux, T. J. ..... Wayzata
Devine, K. D. ..... Rochester
DeWeerd, J. H. ..... Rochester
Deweese, W. J. ..... Bemidji
Dewey, D. H. ..... Owatonna
† Dickson, T. H. ..... Saint Paul
Didcoct, J. W. ..... Rochester
Diehl, H. S. ..... Minneapolis
Diessner, G. R. ..... Rochester
Diessner, H. D. ..... Minneapolis
Dillard, P. G., Jr. ..... Rochester
Dille, D. E. ..... Litchfield
Dixon, C. F. ..... Rochester
Doane, J. C. ..... Rochester
Dockerty, M. B. ..... Rochester
Dodds, Wm. C. ..... Detroit Lakes
Dodge, Henry W., Jr. ..... Rochester
Doherty, E. M. ..... New Prague
• Dolder, F. C. ..... Evota
Doman, V. Wm. ..... Lakefield
Doms, H. C. A. ..... Slay...
Doms, V. A. ..... Slayton
Donald, T. C., Jr. ..... Rochester
Donaldson, C. S. ..... Foley
Donoghue, F. E. ..... Rochester
Donohue, P. F. ..... Saint Paul
Donovan, D. L. ..... Albert Lea
Dordal, John ..... Sacred Heart
Dorge, R. I. ..... Minneapolis
Dornberger, G. R. ..... Rochester
Dornblaser, H. B. ..... Minneapolis
Dorsey, G. C. ..... Minneapolis
Douglass, B. E. ..... Rochester
Doust, Wm. C. ..... Rochester
Dovenmuehle, R. H. ..... Hastings
Dowidat, R. W. ..... Minneapolis
Doxey, G. L. ..... Minneapolis
Doyle, G. C. ..... Duluth
Doyle, L. O. ..... Minneapolis
Drake, C. B. ..... Saint Paul
Drake, C. R. ..... Minneapolis
† Drake, F. A. ..... Lanesboro
Dredge, H. P. ..... Sandstone
‡ Dredge, T. E. San Francisco, Calif.
Drexler, Geo. W. ..... Blue Earth
Drill, Herman E. ..... Hopkins
† Drips, Della G. ..... Rochester
• Drought, W. W. ..... Fergus Falls

Dry, Thos. J. ..... Rochester
Dubbe, F. H. ..... New Ulm
DuBois, J. F. ..... Sauk Centre
DuBois, J. F., Jr. ..... Sauk Centre
Duff, E. R. ..... Minneapolis
†• Dumas, A. G. ..... Minneapolis
Duncan, D. K. ..... Rochester
Duncan, J. W. ..... Moorhead
† Dungay, N. S. ..... Northfield
Dunlap, E. H. ..... Minneapolis
Dunlap, R. W. ..... Rochester
Dunn, James N. ..... Saint Paul
Dupont, J. A. ..... Excelsior
Duryea, W. M. ..... Minneapolis
DuShane, J. W. ..... Rochester
† Dutton, C. E. ..... Minneapolis
Dvorak, B. A. ..... Minneapolis
Dwan, P. F. ..... Minneapolis
Dworsky, S. D. ..... Minneapolis
Dysterheft, A. F. ..... Gaylord

Earl, Geo. A. ..... Saint Paul
Earl, John R. ..... Saint Paul
Eaton, L. M. ..... Rochester
Eberley, T. S. ..... Benson
† Eberlin, Edw. A. ..... Glenwood
Eby, Lee G. ..... Rochester
Eckdale, J. E. ..... Marshall
Eckles, Nylene ..... Minneapolis
Eckman, P. F. ..... Duluth
Eckman, R. J. ..... Duluth
Ede, Mitchell ..... Rochester
Edlund, Gustaf ..... Saint Paul
Edwards, J. E. ..... Rochester
Edwards, J. W. ..... Saint Paul
Edwards, L. G. ..... Saint Paul
† Edwards, R. T. ..... Columbus, Ohio
Edwards, T. J. ..... Saint Paul
Egge, S. G. ..... Albert Lea
Eginton, C. T. ..... Saint Paul
Ehrenberg, C. J. ..... Minneapolis
Ehrlich, S. P. ..... Minneapolis
Eich, M. A. ..... Minneapolis
Eide, O. A. ..... Hancock
Eiler, John ..... Park Rapids
Eisenstadt, D. H. ..... Minneapolis
Eisenstadt, Wm. S. ..... Minneapolis
Eitel, Geo. D. ..... Minneapolis
Ekblad, J. W. ..... Duluth
Eklund, C. D. ..... Brookston
Ekstrand, L. M. ..... Wabasha
Elias, Frank J. ..... Duluth
Elkins, Earl C. ..... Rochester
Ellingson, A. R. ..... Detroit Lakes
Ellis, Earl Wm. ..... Elgin
Ellis, F. H. ..... Rochester
Ellison, D. E. ..... Minneapolis
Ellison, F. E. ..... Monticello
Elsey, Edw. M. ..... Glenwood
† Elsey, James R. ..... Glenwood
Ely, O. S. ..... Saint Paul
Emanuel, K. Wm. ..... Duluth
Emerson, E. C. ..... Saint Paul
Emerson, E. E. ..... Osakis
Emmett, J. L. ..... Rochester
Emmons, R. W. ..... Saint Paul
Emond, A. J. ..... Farmington
Emond, J. S. ..... Farmington
Endress, E. K. ..... Saint Paul
Engberg, E. J. ..... Faribault
Engel, R. C. H. ..... Cambridge
Engelhart, P. C. ..... Minneapolis
† Englund, E. F. ..... Minneapolis
Engstrand, O. J. ..... Minneapolis
Engstrom, G. F. ..... Belgrade
Engstrom, Robert ..... Mankato
Enroth, O. E. ..... Saint Paul
Eppard, R. M. ..... Cloquet
Epperson, D. P. ..... Rochester
Erdal, O. A. ..... Albert Lea
Erich, J. B. ..... Rochester
Erickson, A. O. ..... Long Prairie
Erickson, C. O. ..... Minneapolis
Erickson, D. J. ..... Rochester
Erickson, Eskil ..... Halstad
Erickson, L. F. ..... Minneapolis
Erickson, R. F. ..... Minneapolis
Ericson, R. M. ..... Minneapolis
Ericson, Swan ..... Le Sueur
Ernest, G. C. H. St. Petersburg, Fla.
Ersfeld, M. P. ..... Saint Paul
Ertel, E. Q. ..... Ellendale
† Eshelby, E. C. ..... Saint Paul
• Esser, O. J. ..... New Ulm
Esser, R. A. ..... Rochester
Estes, J. E. ..... Rochester
Estrem, C. O. ..... Fergus Falls
Estrem, R. D. ..... Fergus Falls
Estrem, T. A. ..... Hibbing
† Eusterman, G. B. ..... Rochester
Eustermann, J. J. ..... Mankato
Evans, E. T. ..... Minneapolis
Evans, L. M. ..... Sauk Rapids

† Evarts, A. B. ..... Rochester
Evert, J. A., Jr. ..... Saint Paul
Ewens, H. B. ..... Virginia

Faber, J. E. ..... Rochester
† Fahey, Edw. W. ..... Saint Paul
Fahr, Geo. E. ..... Minneapolis
Fait, R. V. ..... Little Falls
Falsetti, F. P. ..... Rochester
Fansler, W. A. ..... Minneapolis
Farkas, J. V. ..... Saint Paul
† Farrish, R. C. ..... Sherburn
Faulconer, Albert, Jr. ..... Rochester
Faulkner, J. W. ..... Rochester
Fawcett, A. M. ..... Renville
Fawcett, K. R. ..... Duluth
Fee, John G. ..... St. Paul
Feeney, J. M. ..... Minneapolis
Feigal, D. W. ..... Wayzata
Feigal, Wm. M. ..Thief River Falls
Feinstein, J. Y. ..... Minneapolis
Feldmann, F. M. ..Bronxville, N. Y.
Felion, A. J. ..... Saint Paul
Fellows, M. F. ..... Duluth
Fenger, E. P. K. ..... Oak Terrace
† Ferguson, J. C. ..... Saint Paul
Ferguson, Wm. C. ...Walnut Grove
Ferris, D. O. ..... Rochester
Fésenmaier, O. B. ..... New Ulm
Fesler, H. H. ..... Saint Paul
Fidelman, N. E. ..... Foley
Field, A. H. ..... Farmington
Figi, F. A. ..... Rochester
Fine, B. A. ..... Crosby
Fingerman, D. L. ..... Minneapolis
Fink, D. L. ..... Saint Paul
Fink, Leo Wm. ..... Minneapolis
Fink, W. H. ..... Minneapolis
Finkelnburg, W. O. ..... Winona
Fisch, H. M. ..... Austin
Fischer, M. McC. ..... Duluth
Fischer, J. R. ..... Owatonna
Fisher, D. W. ..... Saint Paul
Fisher, Isadore I. ..... Minneapolis
Fisher, J. M. ..... Willmar
Fisketti, Henry ..... Duluth
† Fitzgerald, D. F. ..... Wayzata
† Fitzgerald, E. T. ..... Morris
Fitzpatrick, T. B. ..... Rochester
Fitzsimons, Wm. E. ..... Brainerd
Fjeldstad, C. A. ..... Minneapolis
Flagg, G. B. ..... Minneapolis
Flanagan, H. F. ..... Saint Paul
Flanagan, J. R. ..... Rochester
Flanagan, L. G. ..... Austin
Flancher, L. H. ..... Crookston
Flannery, H. F. ..... Saint Paul
Fleeson, Wm. H. ..... Minneapolis
† Fleming, A. S. ..... Minneapolis
Fleming, D. S. ..... Minneapolis
Fleming, T. N. ..... St. Cloud
Flesche, B. A. ..... Lake City
Fliehr, R. R. ..... Minneapolis
Flink, E. B. ..... Minneapolis
‡ Flinn, J. B. ..... Pt. Blakely, Wash.
Flinn, T. E. ..... Remer
‡ Floersch, A. J. ..... Seattle, Wash.
Flom, M. G. ..... Zumbrota
Flynn, B. F. ..... Hibbing
Flynn, L. L., Jr. ..... Saint Paul
Fogarty, C. Wm., Jr. ..... Saint Paul
† Fogarty, C. Wm. ..... Saint Paul
Fogelberg, E. J. ..... Saint Paul
Foker, L. W. ..... Minneapolis
Foley, F. E. B. ..... Saint Paul
Folken, F. G. ..... Albert Lea
Folsom, L. B. ..... Minneapolis
Ford, B. C. ..... Marshall
Ford, Wm. H. ..... Minneapolis
Forsythe, J. R. ..... Saint Paul
Fortier, G. M. A. ..... Little Falls
Fortier, R. G. ..... Marble
Foss, E. L. ..... Rochester
Foster, O. W. ..... Minneapolis
Foulk, Wm. T. ..... Rochester
Fowler, L. H. ..... Minneapolis
Fox, J. R. ..... Minneapolis
Franchere, F. Wm. ....Lake Crystal
Francis, D. W. ..... Morristown
Frane, D. B. ..... Minneapolis
Frank, L. M. ..... Rochester
Frear, Rosemary R. ..... Minneapolis
Fredericks, Geo. M. ....Minneapolis
Frederickson, Alice C. ....Willmar
Frederickson, Guy U. Y. ...Willmar
• Fredlund, M. L. ..... Minneapolis
Fredricks, M. G. ..... Duluth
Freedman, M. A. ..... Rochester
† Freeman, C. D. ..Balsam Lake, Wis.
Freeman, C. D., Jr. ..... Saint Paul
Freeman, Craig ..... Minneapolis
Freeman, D. W. ..... Minneapolis

Freeman, G. I. ..... Saint Paul
Freeman, J. G. ..... Rochester
† Freeman, J. P. ..... Glenville
Freidman, L. L. ..... Saint Paul
Freligh, W. P. ..... Albert Lea
French, L. A. ..... Minneapolis
Fricke, R. E. ..... Rochester
Fried, L. A. ..... Minneapolis
Friedell, Aaron ..... Minneapolis
Friedell, George ..... Ivanhoe
Friedman, H. S. ..... Minneapolis
Friedman, Jack ..... Minneapolis
‡ Friend, C. A. Ft. Leonard Wood, Mo.
Friesleben, Wm. ..... Sauk Rapids
Frisch, D. C. ..... Minneapolis
Frisch, F. P. ..... Willmar
Fritsche, Albert ..... New Ulm
Fritsche, C. J. ..... New Ulm
Fritsche, Theo. R. ..... New Ulm
Fritz, W. L. ..... Saint Paul
Froats, C. W. ..... Saint Paul
† Frost, E. H. ..... Willmar
Frost, J. B. ..... Minneapolis
Frost, R. H. ..... Oak Terrace
Frykman, H. M. ..... Minneapolis
Fugina, Geo. R. ..... Mankato
Fuller, Alice H. ..... Minneapolis
Fuller, B. F. ..... Saint Paul
Fuller, Josiah ..... Rochester
Funk, V. K. ..... Oak Terrace
Furman, L. Christine .. Minneapolis
Furnell, D. Q. ..... Saint Paul

Gaida, J. B. ..... St. Cloud
† Gaines, E. C. ..... Buffalo Lake
† Gallagher, B. J. ..... Waseca
‡ Gallagher, W. B. ... Vienna, Austria
† Galligan, Margaret M. .. Minneapolis
Galloway, J. B. ..... Minneapolis
† Gambill, C. M. ..... Rochester
Gambill, E. E. ..... Rochester
Gammell, J. H. ..... Minneapolis
Garbrecht, A. Wm. ..... Saint Paul
Gardiner, D. G. ..... Saint Paul
Gardner, V. H. ..... Fairmont
Gardner, W. P. ..... Saint Paul
Garlock, A. V. ..... Bemidji
Garlock, D. H. ..... Bemidji
Garrow, D. M. ..... Saint Paul
Garske, G. L. ..... Minneapolis
Garten, J. L. ..... Minneapolis
Gastineau, C. F. ..... Rochester
Gaviser, David ..... Minneapolis
Gehlen, J. N. ..... Saint Paul
Geiser, P. M. ..... Alexandria
Geraci, J. E. ..... Rochester
Gericke, J. T., Jr. ..... Glenwood
Geurs, B. R. ..... Mankato
Ghent, C. H. ..... Saint Paul
Ghormley, K. O. ..... Rochester
Ghormley, R. K. ..... Rochester
Ghostley, Mary C. ..... Puposky
Gibb, R. P. ..... Rochester
Gibbons, F. C. ..... Comfrey
Gibbs, E. C. ..... Saint Paul
Gibbs, R. W. ..... Minneapolis
Giberson, R. G. ..... Rochester
Gibson, M. M. ..... Rochester
‡ Giebenhain, J. N. ..... Evanston, Ill.
Giebink, R. R. .... Fargo, No. Dak.
Giere, J. C. ..... Minneapolis
Giere, R. W. ..... Minneapolis
Giere, S. W. ..... Benson
Giesen, A. F. ..... Starbuck
† Giessler, P. W. ..... Minneapolis
† Giffin, H. Z. ..... Rochester
Gifford, R. W., Jr. ..... Rochester
Gilbert, L. W. ..... Rochester
Gilbert, M. G. ..... Minneapolis
Gilkey, S. E. ..... Saint Paul
Gillespie, D. R. ..... Saint Paul
Gillespie, M. G. ..... Duluth
Gilman, L. C. ..... Willmar
† Gilmore, Rowland ..... Crookston
Gingold, B. A. ..... Minneapolis
Ginsberg, R. L. ..... Rochester
Girvin, R. B. ..... Minneapolis
Gjerde, Wm. P. ..... Lake City
Glabe, R. A. ..... Plainview
Glaeser, J. H. ..... Gibbon
Gleason, W. A. ..... Saint Paul
Goblirsch, A. P. ..... Sleepy Eye
Goehrs, G. H. ..... St. Cloud
Goehrs, H. Wm. ..... St. Cloud
Goldberg, I. M. ..... Minneapolis
Goldish, D. R. ..... Duluth
Goldman, T. I. ..... Minneapolis
Goldner, M. Z. ..... Minneapolis
Goldsmith, J. W. ..... Saint Paul
Goldstein, N. P. ..... Rochester
† Goltz, E. V. ..... Saint Paul
Goltz, N. F. ..... Saint Paul
Goltz, R. Wm. ..... Saint Paul
Good, C. A., Jr. ..... Rochester
Good, H. D. ..... Minneapolis
Goodlad, J. H. ..... Rochester
Gordon, P. E. ..... Minneapolis
Gordon, S. S. ..... Minneapolis
Goss, H. C. ..... Glencoe
Goss, Martha D. ..... Glencoe
Gowan, L. R. ..... Duluth
Graham, A. W. ..... Chisholm
Graham, G. G. ..... Rochester
Grahek, J. P. ..... Ely
Grais, M. L. ..... Minneapolis
Grant, H. W. ..... Saint Paul
Grant, J. C. ..... Sauk Centre
Gratzek, F. R. E. ..... Minneapolis
Gratzek, Thos. ..... Saint Paul
Grau, R. K. ..... Saint Paul
Grave, Floyd ..... Minneapolis
Graves, R. B. ..... Red Wing
Graves, W. N. ..... Duluth
† Gray, F. D. ..... Marshall
Gray, H. K. ..... Rochester
Gray, R. C. ..... Minneapolis
Green, R. A. ..... Minneapolis
Greenberg, A. J. ..... Minneapolis
Greene, D. E. .... Thief River Falls
Greene, L. F. ..... Rochester
Greenfield, Irving ..... Minneapolis
Greenfield, Wm. T. ..... Delano
† Greishiemer, E. M.. Philadelphia, Pa.
Grindley, J. W. ..... Glencoe
‡ Griebie, G. L. .... Ft. Lewis, Wash.
‡ Griffin, G. D., Jr. Boswell, New Mex.
Griffin, R. P. ..... Benson
Griffith, E. R. ..... Rochester
Grimes, B. P. ..... St. Peter
Grimes, Marian ..... Minneapolis
Grindlay, J. H. ..... Rochester
Grinley, A. V. ..... Grand Rapids
Grise, Wm. B. ..... Austin
Grogan, J. M. ..... Denver, Colo.
† Grogan, J. S. ..... Wadena
Gronvall, P. R. ..... Minneapolis
Groschupf, Theo. P. ..... Bemidji
Grose, F. N. ..... Clarissa
Gross, J. B. ..... Rochester
Grotting, J. K. ..... Minneapolis
† Gruenhagen, A. P. ..... Saint Paul
Grundset, O. J. ..... Montrose
Gruys, R. I. ..... Windom
Guilbert, G. D. ..... Legion, Texas
Guilfoile, P. J. ..... Delano
† Gullixson, Andrew .. Longmont, Colo
Gully, R. J. ..... Cambridge
Gunlaugson, F. G. .... Minneapolis
Gushurst, E. G. ..... Minneapolis
Gustafson, M. B. ..... Rochester
Gustason, H. T. ..... Minneapolis
Guy, Jack A. ..... New London

Haavik, J. E. ..... Duluth
Habein, H. C. ..... Rochester
Haberer, Helen R. ..... Minneapolis
Haberman, Emil ..... Osakis
Haddy, F. J. ..... Rochester
Haes, Julius E. ..... Mankato
Hagedorn, A. B. ..... Rochester
Hagen, O. J. ..... Moorhead
Hagen, P. S. ..... Saint Paul
Hagen, W. S. ..... Minneapolis
† Haggard, G. D. ..... Minneapolis
† Haines, J. H. ..... Stillwater
Haines, S. F. ..... Rochester
‡ Halbert, J. J. ..... Duluth
Halenbeck, P. L. ..... St. Cloud
Hall, A. M. ..... Minneapolis
Hall, Bernard ..... Saint Paul
Hall, B. E. ..... Rochester
Hall, H. B. ..... Minneapolis
Hall, W. H. ..... Minneapolis
Hall, Wm. E. ..... Maple Lake
Hallberg, C. A. ..... Minneapolis
Hallberg, O. E. ..... Rochester
† Hallenbeck, D. F. ..... Rochester
Hallenbeck, G. A. ..... Rochester
Halliday, P. V. ..... Duluth
Hallin, R. P. ..... Worthington
Halloran, W. H. ..... Jackson
Halme, W. B. ..... Cloquet
Halpern, D. J. ..... Brewster
Halpin, J. E. ..... Rush City
Halvorson, J. W. ..... Goodhue
Hammar, L. M. ..... Mankato
Hammes, E. M. ..... Saint Paul
Hammes, E. M., Jr. .... Saint Paul
Hammond, J. F. ..... Saint Paul
† Haney, C. L. ..... Duluth
Hankerson, R. G. ..Minnesota Lake
Hanlon, D. G. ..... Rochester
Hannah, H. B. ..... Minneapolis
Hanover, R. D. ..... Littlefork
Hansen, C. O. ..... Minneapolis
Hansen, E. W. ..... Minneapolis
Hansen, O. S. ..... Minneapolis
Hansen, R. M. ..... Minneapolis
Hansen, Theo. M. ..... Albert Lea
† Hanson, A. M. ..... Faribault
Hanson, E. O. ..... Carlton
Hanson, E. C. .... New York Mills
Hanson, H. J. ..... Minneapolis
Hanson, H. B. ..... Saint Paul
Hanson, H. V. ..... Minneapolis
Hanson, H. H. ..... Rochester
Hanson, J. W. ..... Northfield
Hanson, Lewis ..... Frost
Hanson, M. B. ..... Minneapolis
Hanson, N. O. ..... Rochester
‡ Hanson, S. M. ..... Sparta, Wisc.
Hanson, Wm. A. H. .... Minneapolis
Happe, L. J. ..... Minneapolis
Harmon, G. E. ..... Saint Paul
Harnagel, E. E. ..... Rochester
Harrington, S. W. ..... Rochester
Harris, C. N. ..... Hibbing
Harris, Evelyn S. .... Fergus Falls
Harris, L. E. ..... Rochester
Harris, L. D. ..... Minneapolis
Harrison, P. W. ..... Worthington
* Hart, V. L. ..... Minneapolis
Hart, Wm. E. ..... Monticello
Hartfiel, H. A. ..... Montevideo
Hartfiel, Wm. F. ..... Saint Paul
Hartig, H. A. ..... Minneapolis
Hartig, Marjorie ..... Saint Paul
Hartjen, J. K. ..... Bemidji
Hartley, E. C. ..... St. Paul
Hartnagel, G. F. ..... Red Wing
Hartung, E. H. ..... Claremont
Hartwich, R. F. ..... Winona
† Hartzell, T. B. ..... Minneapolis
† Haskell, A. D. ..... Alexandria
Hass, F. M. ..... Minneapolis
Hassett, M. F. ..... Saint Paul
Hassett, R. G. ..... Mankato
Hastings, D. R. ..... Minneapolis
Hastings, D. W. ..... Minneapolis
Hatch, W. E. ..... Duluth
Hattox, J. S. ..... Rochester
Hauch, E. W. ..... Rochester
Hauge, E. T. ..... Minneapolis
Hauge, M. I. ..... Clarkfield
Haugen, G. W. ..... Minneapolis
Haugen, J. A. ..... Minneapolis
Hauser, G. W. ..... Minneapolis
Hauser, V. P. ..... Saint Paul
Havel, R. J. ..... Minneapolis
Haven, W. K. ..... Minneapolis
Havens, F. Z. ..... Rochester
Havens, J. G. W. ..... Austin
Hawkinson, R. P. ..... Minneapolis
Hawley, II, G. M. B. .... Red Wing
Hayes, A. F. ..... Saint Paul
Hayes, D. W. .... New Orleans, La.
Hayes, J. M. ..... Minneapolis
Hayes, M. F. ..... Nashwauk
Haynes, A. L. ..... Rochester
Hays, A. T. ..... Minneapolis
Hays, J. C. ..... Saint Paul
Head, D. P. ..... Minneapolis
Healy, M. M. ..... Rochester
Healy, R. T. ..... Pierz
Hebbel, Robt. ..... Minneapolis
Hebeisen, M. B. ..... Chaska
Heck, F. J. ..... Rochester
Heck, W. W. ..... Saint Paul
† Hedback, A. E. ..... Minneapolis
Hedberg, G. A. ..... Nopeming
Hedemark, H. H. ..... Ortonville
Hedemark, T. A. ..... Ortonville
Hedenstrom, F. G. ..... Saint Paul
Hedenstrom, L. H. ..... Cambridge
Hedenstrom, P. C. ..... Marshall
Hedin, R. F. ..... Red Wing
† Hegge, O. H. ..... Austin
Hegge, R. S. ..... Austin
Heiam, Wm. C. ..... Cook
Heiberg, E. A. ..... Fergus Falls
Heiberg, O. M. ..... Worthington
† Heilman, D. M. H. ..... Rochester
Heilman, F. R. ..... Rochester
Heim, R. R. ..... Minneapolis
Heimark, J. J. ..... Fairmont
Heinz, Ivy B. ..... Shakopee
Heinz, L. H. ..... Shakopee
Heise, Carl v. R. ..... Winona
Heise, Paul ..... Winona
Heise, Philip R. ..... Winona
† Heise, Wm. F. C. ..... Winona
Heise, Wm. v. R. ..... Winona
Heisler, J. J. ..... Minneapolis
Helferty, J. K. ..... Boise, Idaho
† Helland, G. M. ..... Spring Grove
† Helland, J. W. ..... Spring Grove
Heller, Ben I. ..... Minneapolis
† Helmholz, H. F. ..... Rochester
Helseth, H. K. ..... Pelican Rapids
† Hempstead, B. E. ..... Rochester

† Hemstead, Werner .....Minneapolis
Hench, P. S. .....Rochester
Henderson, A. J. G. .No. Saint Paul
Henderson, E. D. .....Rochester
Henderson, W. .....Rochester
Henderson, M. S. .....Rochester
Hendricks, E. J. .....Saint Paul
† Hendrickson, F. .....Minneapolis
† Hendrickson, R. R. .....Crookston
Hengstler, Wm. H. .....Saint Paul
Henney, Wm. H. .....McIntosh
Henrikson, E. C. .....Minneapolis
Henry, C. J. .....Milaca
† Henry, C. E. .....Kirksville, Mo.
Henry, J. E. .....Milaca
Henry, M. O. .....Minneapolis
Hensel, C. N. .....Saint Paul
*†Henslin, A. E. .....Cresco, Iowa
Herbert, C. M., Jr. .....Rochester
Herbert, W. L. .....Minneapolis
Herbst, R. F. .....Willmar
Herman, S. M. .....Saint Paul
Hermann, H. W. .....Minneapolis
Hermanson, P. E. .....Hendricks
Heron, R. C. .....Saint Paul
Herrell, W. E. .....Rochester
Herrmann, E. T. .....Saint Paul
Hertel, G. E. .....Austin
Hertz, M. J. .....Saint Paul
Hesdorffer, M. B. .....Minneapolis
Hetrick, M. A. .....Rochester
† Hewitt, R. M. .....Rochester
† Heyerdale, O. C. .....Rochester
† Higgins, J. H. .....Minneapolis
Higgs, W. W. .....Park Rapids
Hightower, N. C., Jr. ..Minneapolis
Hilding, A. C. .....Duluth
Hilger, A. Wm. .....Saint Paul
*†Hilger, D. D. .....Saint Paul
Hilger, J. A. .....Saint Paul
Hilger, L. D. .....Saint Paul
Hilker, M. D. .....Saint Paul
Hill, Earl .....Minneapolis
Hill, Elmer M. .....Minneapolis
Hill, F. E. .....Duluth
Hill, J. R. .....Rochester
Hill, W. C. .....Ann Arbor, Mich.
† Hillis, S. J. ..East Bradenton, Fla.
Hills, Oscar W. .....Rochester
Hilsabeck, J. R. .....Rochester
Hinckley, R. G. .....Minneapolis
Hinderaker, H. P. .....Bird Island
Hines, C. R., Jr. .....Rochester
Hines, E. A., Jr. .....Rochester
Hiniker, L. P. .....Saint Paul
Hiniker, P. J. .....Le Sueur
Hinz, W. E. .....Willmar
Hirschboeck, F. J. .....Duluth
Hirschfield, F. R. .....Minneapolis
† Hitchcock, C. R. .....Minneapolis
Hitchings, Wm. S. .....Lakefield
† Hoaglund, A. Wm.
Los Angeles, Calif.
Hochfilzer, J. J. .....Saint Paul
Hodapp, R. J. .....Willmar
Hodapp, R. V. .....Willmar
Hodgson, C. H. .....Rochester
Hodgson, Jane E. .....Saint Paul
Hodgson, J. R. .....Rochester
Hoehn, David .....Holdingford
Hoeper, P. G. .....Mankato
Hoff, H. O. .....Duluth
Hoffbauer, F. W. .....Minneapolis
Hoffert, H. E. .....Minneapolis
Hoffman, M. S. .....Rochester
Hoffman, R. A. .....Minneapolis
Hoffman, W. L. .....Minneapolis
Hofmann, G. N. .....Cannon Falls
‡ Hoganson, D. E. .Camp Rucker, Ala.
Hoidale, A. D. .....Tracy
Holcomb, J. T. .Marine-on-St. Croix
Holcomb, O. W. .....Saint Paul
Holland, C. R. .....Rochester
† Hollands, W. H. .....Fisher
Hollenhorst, R. W. .....Rochester
Hollinshead, W. H. ....Saint Paul
Holm, H. H. .....Glencoe
† Holm, P. F. .....Sarasota, Fla.
Holman, C. B. .....Rochester
Holmberg, C. J. .....Minneapolis
Holmberg, Leroy J. .....Canby
Holman, R. W. .....Saint Paul
Holmes, A. E. .....Rush City
Holmstrom, C. H. .....Warren
Holt, A. H. .....Rochester
Holt, J. E. .....Saint Paul
Holzapfel, F. C. .....Minneapolis
Hood, R. T. .....Rochester
Hom, L. Y. W. .....Battle Lake
† Hopkins, G. W. .....Saint Paul
Horns, H. L. .....Minneapolis
Horns, R. C. .....Minneapolis
Horton, B. T. .....Rochester
Hottinger, R. C. .....Janesville

† Houkom, Bjarne
Luskoto T.T., East Africa
Houkom, S. S. .....Duluth
Houle, R. J. .....New Brighton
† House, Z. E. .....Burbank, Calif.
Houston, D. M. .....Park Rapids
Hovde, Rolf .....Winthrop
Hovland, M. L. .....Minneapolis
Howard, E. G. .....Mapleton
Howard, M. I. .....Mankato
Howard, M. A. .....Saint Paul
Howard, S. E. .....Minneapolis
Howard, W. S. .....Saint Paul
Howe, N. W. .....Saint Paul
Howell, L. P. .....Rochester
Hoyer, L. J. .....Windom
Hubbard, O. E. .....Brainerd
Hubin, E. G. .....Sandstone
Hubler, W. L. .....Rochester
Hudec, E. R. .....Echo
Hudson, G. E. .....Minneapolis
Hudspeth, Wm. T. .....Madison
Huenekens, E. J. .....Minneapolis
† Huffington, H. L. .....Mankato
Hugenberg, Wm. C. .....Rochester
Huizenga, K. A. .....Rochester
Hullsiek, H. E. .....Saint Paul
Hullsiek, R. B. .....Minneapolis
Hultgen, Wm. J. .....Saint Paul
† Hultkrans, J. C. .....Minneapolis
Hultkrans, R. E. .....Minneapolis
Humphrey, E. W. .....Moorhead
Humphrey, W. R. .....Stillwater
Hunt, A. B. .....Rochester
Hunt, R. S. .....Fairmont
Hunt, R. C. .....Fairmont
Hunt, William .....Rochester
† Hunte, A. F. ....Alhambra, Calif.
Hunter, J. S. .....Rochester
Hunter, R. C. .....Rochester
† Hurd, Annah .....Minneapolis
Hursh, P. W. .....Slayton
Hurwitz, M. M. .....Saint Paul
‡ Hutchinson, C. J. .So. Boston, Mass.
Hutchinson, D. W. ....Oak Terrace
Hutchinson, Henry ....Moose Lake
† Huxley, F. R. .....Faribault
Hymes, Chas. .....Minneapolis
† Hynes, J. E. .....Minneapolis

† Ide, Arthur W. .....Saint Paul
Idstrom, L. G. .....Minneapolis
Ikeda, Kano .....Saint Paul
Ingalls, E. G., Jr. ....Minneapolis
Ingebrigtson, E. K. G.
Big Springs, Texas
Ingerson, C. A. .....Saint Paul
Irvine, H. G. .....Minneapolis
Iverson, R. M. .....Minneapolis
Ivins, John C. .....Rochester
Ivy, John H. .....Rochester

Jackman, R. J. .....Rochester
Jacobs, D. L. .....Willmar
Jacobs, G. C. .....Fergus Falls
† Jacobs, J. C. .....Willmar
Jacobson, Clarence .....Chisholm
Jacobson, C. W. .....Breckenridge
Jacobson, F. C. .....Duluth
Jacobson, W. E. .....Minneapolis
James, E. M. .....Saint Paul
Jampolis, R. W. .....Rochester
Janecky, A. G. .....Baudette
Janes, J. M. .....Rochester
Janssen, M. E. .....Crookston
Jensen, A. M. .....Brownton
Jensen, A. R. .....Crookston
Jensen, H. C. .....Minneapolis
† Jensen, M. J. .....Minneapolis
Jensen, N. K. .....Minneapolis
Jensen, R. A. .....Minneapolis
Jensen, T. J. .....Duluth
Jensen, J. E. .....Stillwater
Jerome, Bourne .....Minneapolis
Jeronimus, H. J. .....Duluth
Jesion, J. W. .....Saint Paul
Jessico, C. M. .....Duluth
Joffe, H. H. .....Duluth
Johanson, W. G. .....Saint Paul
Johnson, A. McF. .....Rochester
Johnson, Aldridge F.
Indianapolis, Ind.
Johnson, Andrew B. .....Rochester
† Johnson, Arnold E. ....Minneapolis
Johnson, Arthur B. ....Minneapolis
Johnson, August E. ....Minneapolis
* Johnson, A. M. .....Saint Paul
† Johnson, C. E. .....Saint Paul
Johnson, Carl E. .....Saint Paul
Johnson, Carl Eric .....Rochester
Johnson, C. M. .....Clarkfield

Johnson, C. Percy .....Tyler
Johnson, D. A. .....Rochester
Johnson, D. L. .....Little Falls
Johnson, E. W. .....Bemidji
Johnson, Emil W. .....Minneapolis
† Johnson, Hans .....Kerkhoven
Johnson, H. C. ..Thief River Falls
Johnson, Harry A. .....Minneapolis
Johnson, Herbert W. .....Rochester
Johnson, Hobart C. ..North Mankato
† Johnson, Hugh A. .....Rochester
Johnson, J. A. .....Minneapolis
Johnson, J. W. .....Minneapolis
Johnson, Julius .....Minneapolis
Johnson, K. E. .....Duluth
Johnson, K. J. .....Bemidji
Johnson, M. R. .....Minneapolis
Johnson, Merton A. .....Storden
*†Johnson, Nimrod A. .....
Santa Monica, Calif.
Johnson, Norman P. ...Minneapolis
Johnson, Norton T. .....Minneapolis
Johnson, Olga H. .....Moorhead
Johnson, Orville H. ..Redwood Falls
Johnson, Ralph B. .....Lanesboro
Johnson, Ray G. .....Stillwater
Johnson, Reinald G. ...Minneapolis
Johnson, Reuben A. ...Minneapolis
Johnson, Robert E. ....Minneapolis
Johnson, Rudolph E..Ah-Gwah-Ching
Johnson, V. M. .....Dawson
Johnson, Wm. E. .....Morgan
Johnson, Wm. E. .....Rochester
Johnson, Y. T. .....Minneapolis
Johnsrud, L. W. .....Chisholm
Johnston, L. F. .....Winona
† Johnston, R. O. .....Hibbing
Jolin, F. M. .....Bovey
† Jones, Alvah W. .....Red Wing
Jones, E. Mendelssohn....Saint Paul
‡ Jones, G. W...Ft. Leavenworth, Kan.
Jones, H. W., Jr. .....Minneapolis
Jones, O. H. .....Mankato
Jones, Richard F. .....Rochester
Jones, R. H. .....Minneapolis
Jones, R. N. .....Saint Cloud
Jones, Wm. R. .....Minneapolis
† Jordan, Kathleen B. S. .....
Granite Falls
Jordan, L. S. .....Granite Falls
Jordan, R. A. .....Rochester
Josewich, Alex. .....Minneapolis
Josewski, R. J. .....Stillwater
Josselson, A. J. .....Rochester
Joyce, G. L. .....Rochester
Judd, E. S., Jr. .....Rochester
Judd, Walter H...Washington, D. C.
Judge, D. J. .....Rochester
Juergens, H. M. .....Belle Plaine
Juergens, M. F. .....Stillwater
Juers, E. H. .....Red Wing
Juliar, R. O. .....Saint Clair
Juntunen, R. R. .....Nashwauk
Jurdy, M. J. .....Minneapolis
Just, H. J. .....Hastings

Kaasa, L. J. .....Saint Peter
Kabrick, O. A. .....Saint Peter
Kalin, O. T. .....Minneapolis
Kallestad, L. L. .....Brownton
Kamman, G. R. .....Saint Paul
† Kamp, Byron A. .....Albert Lea
Kanne, E. R. .....Brainerd
Kaplan, D. H. .....Saint Paul
Kaplan, J. J. .....Minneapolis
Kapsner, A. T. .....Princeton
Karlen, Markle .....Rochester
Karleen, B. N. .....Jackson
Karleen, C. I. .....Minneapolis
Karlstrom, A. E. .....Minneapolis
Karn, J. F. .....Ortonville
Karon, I. M. .....Saint Paul
Kasper, E. M. .....Saint Paul
Kath, R. H. .....Woodlake
Katz, Louis J..Hot Springs, So. Dak.
Kaufman, E. J. .....Appleton
Kaufman, H. J. .....Minneapolis
Kaufman, W. B. .....Mankato
Kaufman, Wm. C. .....Appleton
Kearney, R. W. .....Mankato
Keating, F. R., Jr. ...St. Louis, Mo.
Keating, J. U. .....Rochester
Keefe, R. E. .....Saint Paul
Keil, M. A. .....Mankato
† Keith, H. M. .....Rochester
† Keith, N. M. .....Rochester
Keithahn, E. E. .....Sleepy Eye
Kelby, G. M. .....Minneapolis
Kelley, E. P. .....Rochester
Kelley, K. J. .....Litchfield
Kelly, A. C. .....Duluth
Kelly, A. H. .....Rochester
Kelly, J. F. .....Cold Springs

Kelly, J. P. .....Minneapolis
Kelly, J. V. .....Saint Paul
Kelsey, C. G. .....Hinckley
Kelsey, C. M. .....Saint Paul
Kelsey, J. R. .....Rochester
Kemp, A. F. .....Mankato
Kenefick, E. V. .....Saint Paul
Kennedy, C. C. .....Minneapolis
Kennedy, G. L. .....Faribault
† Kennedy, J. F. .....Minneapolis
Kennedy, R. L. J. .....Rochester
Kennedy, T. V. A. .....Rochester
Kennedy, Wm. A. .....Saint Paul
Kenney, F. D. .....Rochester
Kenyon, T. J. .....Saint Paul
Kerkhof, A. C. .....Minneapolis
Kernohan, J. W. .....Rochester
Kertesz, G. J. V. .....Minneapolis
Kesting, Herman .....Saint Paul
Kevern, J. L. .....Henning
Keyes, J. D. .....Winona
‡ Keyes, R. W. .....Ely
Kiely, J. M. .....Rochester
Kierland, R. R. .....Rochester
Kiesler, Frank, Jr. .....Minneapolis
Kilbride, E. A. .....Worthington
* Kilbride, J. S. .....Worthington
Kimbrough, R. F. .....Rochester
Kimmel, G. C., Jr. .....Red Wing
† King, E. A. .....Minneapolis
King, F. W. .....Oak Terrace
† King, George L. .....Saint Paul
Kinkade, B. R. .....Ada
Kinports, E. B. .. International Falls
Kinsella, T. J. .....Minneapolis
Kirby, Thomas J., Jr. .....Rochester
† Kirk, G. P. .....East Grand Forks
Kirklin, B. R. .....Rochester
Kirklin, J. W. .....Rochester
Kistler, A. J. .....Minneapolis
Kleckner, M. S. .....Rochester
Klefstad, L. H. .....Greenbush
Klein, Harry .....Duluth
Klein, Henry N. .....Saint Paul
Klein, Wm. A. .....Duluth
Klima, Wm. W. .....Stewart
‡ Kline, R. F. .....Fort Smith, Ark.
Knapp, F. N. .....Duluth
Knapp, M. E. .....Minneapolis
Knight, C. D. .....Rochester
Knight, E. G. .....Swanville
Knight, R. T. .....Minneapolis
Knight, Ray R. .....Minneapolis
Knoche, H. A. .....Morgan
Knoll, W. V. .....Duluth
Knudsen, Helen L. .....Minneapolis
Knutson, G. A. .....Hallock
Knutson, G. E. .....Saint Paul
Knutson, L. A. .....Spring Grove
Knutson, R. C. .....Rochester
Knutsson, Katherine H. .. Rochester
Koelsche, G. A. .....Rochester
Koenigsberger, Chas. .....Mankato
Koepcke, G. M. .....Minneapolis
Kohlbry, Carl O. .....Duluth
Kolars, James J. .....Faribault
Koller, Hermann M. ... Minneapolis
Koller, Louis R. .....Minneapolis
Kooda, Jennings C. .....Morris
Koop, Severin H. .....Richmond
Korchik, John P. .....Minneapolis
Korda, Henry A. .... Pelican Rapids
Kortsch, Ferdinand P. ... Prior Lake
Koskela, Albert L. .....Deer River
Koskela, Lauri Edwin .. Deer River
Kostick, W. R. .....Fertile
Kotchevar, F. R. .....Eveleth
Kottke, F. J. .....Minneapolis
Kotval, R. J. .....Pipestone
Koucky, R. W. .....Minneapolis
Koza, D. W. .....Rochester
Krakowka, G. F. .....Rochester
Krause, C. W. .....Fairmont
Kremen, A. J. .....Minneapolis
Kreuzer, T. C. .....Marshall
Krieser, A. E. .....Anoka
Kroboth, Jr., F. J. .....Rochester
Krout, R. M. .....Rochester
Krueger, V. R. .....Nopeming
Krusen, F. H. .....Rochester
Kruzick, S. J. .....Sleepy Eye
Krystosek, L. A. .....Clara City
Kucera, F. J. .....Hopkins
Kucera, L. B. .....Lonsdale
Kucera, S. T. .....Northfield
Kucera, Wm. J. .....Minneapolis
Kugler, A. A. .....Saint Paul
Kuhlmann, L. B. .....Melrose
Kunkel, W. M., Jr. .....Rochester
Kurtin, H. J. .....Blooming Prairie
Kurtin, J. J. .....Blooming Prairie
Kuske, A. W. .....Saint Paul
Kusske, A. L. .....New Ulm
Kusske, B. W. .... Saint Louis Park
Kvale, W. F. .....Rochester
Kvitrud, Gilbert .....Saint Paul

LaBree, J. W. .....Minneapolis
LaBree, R. H. .....Duluth
Lagaard, S. M. .....Minneapolis
Laikola, L. A. .....Adrian
Laird, A. T. .....Duluth
Lajoie, J. M. .....Minneapolis
Lake, C. F. .....Rochester
Lamp, C. B., Jr. .....Rochester
‡ Lane, R. E. .....Annapolis, Md.
Lang, L. A. .....Minneapolis
Langhoff, A. H. .....Mankato
Lannin, B. G. .....Saint Paul
Lannin, D. R. .....Saint Paul
Lapierre, A. P. .....Minneapolis
Lapierre, J. T. .....Minneapolis
Larsen, C. L. .....Saint Paul
Larsen, F. Wm. .....Minneapolis
Larson, Arnold .....Detroit Lakes
Larson, C. M. .....Minneapolis
Larson, Eva-Jane .....Saint Paul
Larson, G. E. .....Cambridge
Larson, J. T. .....South Saint Paul
Larson, K. R. .....Saint Paul
Larson, L. M. .....Minneapolis
Larson, Leonard M. ... Oak Terrace
Larson, L. J. .....Bagley
Larson, M. L. .....Saint Paul
Larson, M. H. .....Nicollet
Larson, O. E. H. .....Zumbrota
Larson, P. N. .....Minneapolis
Larson, R. H. .....Anoka
Latterell, K. E. .....Duluth
Laughlin, J. T. .....Grey Eagle
LaVake, R. T. .....Minneapolis
Law, S. G. .....Minneapolis
Lax, M. H. .....Saint Paul
Lay, C. L. .....Rochester
Laymon, C. W. .....Minneapolis
† Lazar, H. L. .....Excelsior
Lazarte, J. A. .....Rochester
Leahy, Bartholomew .....Saint Paul
Leavenworth, R. O. .....Saint Paul
† Leavitt, H. H. .....Phoenix, Ariz.
Lebowske, J. A. .....Minneapolis
Leck, P. C. .....Austin
Lecklitner, M. D. .....Minneapolis
Leddy, E. T. .....Rochester
Lee, H. W. .....Brainerd
Lee, M. J., Jr. .....Tyler, Texas
Lee, N. J. .....Saint Paul
† Lee, W. N. .....Claremont, Calif.
Leemhuis, A. J. .....Minneapolis
Leggett, E. A. .....Ah-Gwah-Ching
Leibold, H. H. .....Parkers Prairie
Leick, R. M. .....Saint Paul
Leitch, Archibald .....Saint Paul
Leitschuh, L. F. .....Winsted
Leland, H. R. .....Minneapolis
† Lemon, W. S. .....Rochester
Lenander, M. E. L. .....Saint Peter
Lenarz, A. J. .....Browerville
Lende, Norman .....Faribault
Lengby, F. A. .....Minneapolis
* Lenont, C. B. .....Virginia
Lenz, J. R. .....Morton
Lenz, O. A. .....Minneapolis
Leonard, L. J. .....Minneapolis
Leonard, Saml. .....Minneapolis
† Leopard, B. A. ... Brownsville, Tex.
Lepak, F. J. .....Duluth
Lepak, J. A. .....Saint Paul
† Lerche, William .....Cable, Wis.
Lerner, A. R. .....Minneapolis
Lester, M. J., Jr. .....Truman
Leven, N. L. .....Saint Paul
Leverenz, C. W. .....Saint Paul
Levin, B. G. .....Saint Paul
Levitt, G. X. .....Saint Paul
Lewis, A. J. .....Henning
Lewis, C. W. .....Henning
† Lewis, C. B. .....Saint Cloud
Lewis, F. J. .....Minneapolis
‡ Lewis, J. S., Jr. .. Bremerton, Wash.
Lexa, F. J. .....Lonsdale
Libert, J. N. .....Saint Cloud
Lick, C. L. .....Saint Paul
Lick, L. C. .....Rochester
† Liedloff, A. G. .....Mankato
Lien, R. J. .....Saint Paul
Liffrig, W. W. .....Red Wing
Lightbourn, E. L. .....Saint Paul
Lilleberg, N. J. .....Saint Paul
Lillehei, E. J. .....Robbinsdale
Lillie, H. I. .....Rochester
Lillie, J. C. .....Rochester
Lima, L. R. .....Montevideo
‡ Lind, C. J. Jr. .....
Ft. Sam Houston, Texas
Lind, C. J. .....Minneapolis
Lindberg, A. L. .....Wheaton
Lindberg, A. C. .....Minneapolis

Lindberg, V. L. .....Minneapolis
† Lindberg, W. R. .....Minneapolis
Lindblom, A. E. .....No. Mankato
† Linde, Herman .....Cyrus
Lindeman, R. J. .....Paynesville
Lindgren, R. C. .....Minneapolis
Lindquist, R. H. .....Minneapolis
Linner, Gunnar .....Minneapolis
Linner, H. P. .....Minneapolis
† Linner, J. H. .....Minneapolis
Linner, P. W. .....Minneapolis
Lippman, E. S. .....Minneapolis
Lippman, H. S. .....Saint Paul
Lippmann, E. W. .....Hutchinson
Lipschultz, Oscar .....Minneapolis
Lipscomb, P. R. .....Rochester
Litchfield, J. T. .....Minneapolis
Litin, E. M. .....Rochester
Litman, A. B. .....Minneapolis
Litman, S. N. .....Duluth
Livermore, G. R. .....Rochester
Lofgren, K. A. .....Rochester
Lofsness, S. V. .....Minneapolis
† Logan, A. H. .....Rochester
Logan, G. B. .....Rochester
Logefeil, R. C. .....Minneapolis
Lohmann, J. G. .....Pipestone
Loken, S. M. .....Saint Paul
Loken, Theodore .....Ada
Lommen, P. A. .....Austin
Longfellow, H. W. .....Brainerd
Longley, J. R. .....Rochester
Longo, V. J. .....Rochester
Loomis, E. A. .....Minneapolis
Loomis, G. L. .....Winona
Lorton, W. L. .....Anoka
Lott, F. H. .....Minneapolis
Love, F. A. .....Carlos
Love, J. G. .....Rochester
Lovett, B. R. .....Oak Terrace
Lovshin, W. C. .....Eveleth
Lowe, E. R. .....So. Saint Paul
Lowe, T. A. .....South Saint Paul
Lowry, Elizabeth C. .....Minneapolis
Lowry, Thomas .....Minneapolis
Lucas, J. E. .....Saint Paul
Luck, Hilda .....Mankato
Luckemeyer, C. J. .....Saint Cloud
Lueck, W. W. .....Minneapolis
Lufkin, N. H. .....Minneapolis
Lund, C. J. T. .....Fergus Falls
Lund, W. J. .....Staples
Lundberg, Ruth I. .....Minneapolis
Lundblad, R. M. .....Clara City
Lundblad, R. A. .....Minneapolis
Lundblad, S. W. .....Minneapolis
Lundell, C. L. .....Granite Falls
Lundgren, A. C. .....Minneapolis
Lundholm, A. M. .....Saint Paul
Lundquist, C. W. .....Owatonna
Lundquist, E. F. .....Minneapolis
Lundquist, V. J. P. .....Minneapolis
Lundy, J. S. .....Rochester
Luth, D. V. .....Duluth
Lynch, F. W. .....Saint Paul
† Lynch, M. J. .....Minneapolis
Lynde, O. G. .....Los Gatos, Calif.
Lysne, Henry .....Minneapolis
Lysne, Myron .....Minneapolis

MacCarty, C. S. .....Rochester
† MacCarty, W. C. .....Rochester
† MacDonald, A. E. .....Minneapolis
MacDonald, D. A. .....Minneapolis
MacDonald, R. A. .....Littlefork
MacFarlane, E. B. .....Rochester
MacFarlane, P. H. .....Chisholm
Mach, F. B. .....Minneapolis
Mach, R. F. .....Rush City
MacKenzie, D. A. .....Rochester
MacKinnon, D. C. .....Minneapolis
Macklin, W. E., Jr. .....Willmar
Mackoff, S. M. .....Saint Paul
MacLean, A. R. .....Rochester
† Macnie, J. S. .....Minneapolis
MacRae, G. C. .....Duluth
Madden, J. F. .....Saint Paul
Madison, M. S. .....Rochester
Madland, R. S. .....Saint Paul
Maeder, E. C. .....Minneapolis
Maertz, R. W. .....Faribault
Maertz, W. F. .....Saint Paul
Magath, T. B. .....Rochester
Magney, F. H. .....Duluth
Magnuson, A. E. .....Wheaton
Magnuson, R. C. .....Cambridge
Magraw, R. M. .....Saint Paul
Mahle, D. G. .....Plainview
Mahowald, Aloys .....Albany
Maitland, E. T. .....Jackson
Maland, C. O. .....Minneapolis
Malerich, J. A. .....W. Saint Paul
Malmstrom, J. A. .....Virginia

† Maloney, W. F. .....Oak Terrace
Manger, W. M. .....Rochester
Mankey, J. C. .....Minneapolis
Mankin, H. W. .....Rochester
† Mann, F. C. .....Rochester
Mann, F. D. .....Rochester
Mann, R. H. .....Rochester
† Manson, F. M. .....Worthington
March, K. A. .....Cambridge
† Marcley, W. J. .....Minneapolis
Mariette, E. S. .....Oak Terrace
Marking, G. H. .....Minneapolis
Markle, G. B., IV.....Rochester
Marks, R. W. .....Saint Paul
Marshall, C. M. .....Crosby
Martens, T. G. .....Rochester
Martin, A. C. .....Luverne
Martin, D. A. .....Wabasha
Martin, D. L. .....Saint Paul
‡ Martin, G. R...Camp McCoy, Wis.
Martin, G. M. .....Rochester
Martin, T. P. .....Arlington
Martin, W. C. .....Duluth
Martin, W. J. .....Rochester
Martineau, J. L. .....Saint Paul
Martinson, C. J. .....Wayzata
Martinson, E. J. .....Wayzata
Masson, D. M. .....Rochester
† Masson, J. C. .....Rochester
Masson, J. K. .....Rochester
† Matchan, G. R. .....Saint Paul
Mathieson, D. R. .....Rochester
Mattill, P. M. .....Oak Terrace
Mattison, P. A. .....Winona
Mattson, A. D. .....Saint James
Mattson, H. A. N. .....Minneapolis
Maxeiner, S. R. .....Minneapolis
Maxeiner Jr., S. R. .....Rochester
Mayne, J. G. .....Rochester
Mayne, R. M. .....Nopeming
Mayo, C. W. .....Rochester
Maytum, C. K. .....Rochester
McBean, J. B. .....Rochester
McBurney, R. P. .....Rochester
McCabe, J. S. .....Saint Paul
McCain, D. L. .....Saint Paul
McCaffrey, F. J. .....Minneapolis
McCann, D. F. .....Bemidji
McCann, E. J. .....Minneapolis
McCannel, M. A. .....Minneapolis
McCarten, F. M. .....Stillwater
McCarthy, A. M. .....Willmar
McCarthy, Donald .....Saint Paul
McCarthy, J. J. .....Saint Paul
McCarthy, W. R. .....Saint Paul
McCartney, J. S. .....Minneapolis
† McCarty, P. D. .....Ely
McClanahan, J. H..White Bear Lake
McClanahan, T. S..White Bear Lake
McCloud, C. N., Jr.....Saint Paul
McConahey, W. M., Jr....Rochester
McCormack, L. J. .....Rochester
McCormick, D. P. .....Minneapolis
† McCoy, Mary K. .....Duluth
‡ McCrimmon, H. P...Cleveland, Ohio
† McDaniel, Oriann.....Minneapolis
McDonald, A. L. .....Duluth
McDonald J. R. .....Rochester
McDonald, O. G. .....Duluth
McDowell, J. P. .....Saint Cloud
McEnaney, C. T. .....Owatonna
McEwan, Alexander.....Saint Paul
McFarland, A. H.....Minneapolis
McGandy, R. F. .....Minneapolis
McGeary, G. E. .....Minneapolis
‡ McGeary, M. D. ...Oceanside, Calif.
McGroarty, B. J. .....Saint Paul
McGroarty, J. J. .....Easton
McGuigan, H. T. .....Red Wing
McHaffie, O. L. .....Duluth
McInerny, M. W. .....Minneapolis
McIntire, H. M. .....Waseca
McIntire, S. F. .....Rochester
McIntyre, J. A. .....Owatonna
McIver, B. A. .....Lowry
McKaig, A. M. .....Red Lake Falls
McKaig, C. B. .....Pine Island
McKelvey, I. L. .....Minneapolis
McKenna, Elizabeth M.....Austin
McKenna, J. K. .....Austin
McKenna, M. J. .....Grand Rapids
McKenzie, C. H. .....Minneapolis
McKenzie, Eva E. .....Saint Paul
McKinley, C. A. .....Minneapolis
McKinney, F. S. .....Minneapolis
McLane, W. O. .....Brainerd
† McLaren, J. M. .....Minneapolis
McLaughlin, B. H. .....Minneapolis
McLaughlin, E. M. .....Winona
‡ McLeod, J. I. .....Japan
McLeod, J. L. .....Grand Rapids
McMahon, M. J. .....Green Isle
McManus, W. F. .....Princeton
McMorris, R. O. .....Rochester
McMurtrie, W. B. .....Minneapolis
McNaughton, R. A. .....Rochester
McNeill, J. I. .....Rochester
McNutt, J. R. .....Duluth
McPheeters, H. O. .....Minneapolis
† McQuarrie, Irvine .....Minneapolis
McWhorter, H. E. .....Rochester
Mead, C. H. .....Duluth
Meade, J. R. .....Saint Paul
Mears, B. J. .....Saint Paul
Mears, R. F. .....Northfield
Medelman, J. P. .....Saint Paul
Medlin, C. F. .....Minneapolis
Meinert, A. E. .....Winona
Melancon, J. F. .....Saint Paul
Melby, Benedik....Blooming Prairie
† Mellby, O. F. ....Thief River Falls
Meller, R. L. .....Minneapolis
Melzer, G. R. .....Lyle
Menold, W. F. .....Saint Paul
Mercil, W. F. .....Crookston
Merkert, C. E. .....Minneapolis
Merkert, G. L. .....Minneapolis
Merner, T. B. .....Faribault
† Merrick, C. T. .....Saint Paul
† Merrill, Elisabeth .....Minneapolis
Merrill, R. W. .....Morris
Merriman, L. L. .....Duluth
Merritt, W. A. .....Rochester
Metcalf, N. B. .....Onamia
Meyer, A. J. .....Minneapolis
Meyer, A. A. .....Melrose
Meyer, E. L. .....Minneapolis
Meyer, F. C. .....Kenyon
‡ Meyer, J. O. .....Grand Rapids
Meyer, P. F. .....Faribault
Meyerding, E. A. .....Saint Paul
Michael, J. C. .....Minneapolis
Michel, H. H. .....Minneapolis
Michels, R. P. .....Willmar
Michelson, H. E. .....Minneapolis
Michienzi, L. J. .....Saint Paul
† Mickelsen, Emma F. .....Minneapolis
Mickelson, J. C. .....Mankato
Midthune, A. S. .....Lake Park
Milhaupt, E. N. .....Saint Cloud
Miller, A. L. .....Minneapolis
Miller, E. W. .....Anoka
Miller, E. M. .....Rochester
Miller, Harold E. .....Minneapolis
Miller, Hugo E. .....Minneapolis
Miller, J. C. .....Minneapolis
Miller, R. D. .....Rochester
Miller, Samuel .....Albert Lea
† Miller, V. I. .....Mankato
Miller, W. A. .....New York Mills
Miller, W. R. .....Red Wing
Miller, W. T. .....W. Saint Paul
Miller, Z. R. .....Saint Paul
Millikan, C. H. .....Rochester
Mills, J. L. .....Winnebago
Mills, S. D. .....Rochester
Milnar, F. J. .....Saint Paul
Milton, I. S. .....Minneapolis
Minge, R. K. .....Worthington
Minsky, A. A. .....Minneapolis
Minty, E. W. .....Duluth
Misbach, W. D. .....Fairmont
Mitby, I. L. .....Minneapolis
Mitchell, B. D. .....Minneapolis
Mitchell, E. C. .....Minneapolis
Mitchell, M. T. .....Minneapolis
Mixer, H. W. .....Minneapolis
Moberg, C. W. .....Detroit Lakes
Moe, A. E. .....Moorhead
Moe, J. H. .....Minneapolis
Moe, R. J. .....Duluth
Moe, Thos. .....Moose Lake
Moehn, J. T. .....Minneapolis
Moehring, H. G. .....Duluth
Moen, J. K., Jr. .....Minneapolis
Moersch, F. P. .....Rochester
Moersch, H. J. .....Rochester
Moersch, R. U. .....Rochester
Moga, J. A. .....Saint Paul
Molander, H. A. .....Saint Paul
Mollers, T. P. .....Soudan
† Monahan, Elizabeth.....Minneapolis
Monroe, P. B. .....Cloquet
Monserud, N. O. .....Cloquet
Monson, E. M. .....Minneapolis
Monson, L. J. .....Canby
Monsour, K. J. .....Rochester
Montgomery, Hamilton .....Rochester
Moore, I. H. .....Minneapolis
Moorhead, Marie .....Minneapolis
Moos, D. J. .....Minneapolis
Moquin, Marie A. .....Saint Paul
† Morehead, D. E. .....Owatonna
† Moren, Edward .....Minneapolis
† Moren, J. A. .....Saint Paul
Morgan, H. O. .....Amboy
Moriarty, Berenice .....Saint Paul
Moriarty, Cecile R. .....Saint Paul
Mork, A. H. .....Anoka
Mork, F. E. .....Anoka
Morlock, C. G. .....Rochester
Morris, C. R. .....Dallas, Texas
Morrison, C. J. .....Minneapolis
Morrison, R. W. .....Rochester
Morrow, R. P., Jr..New Orleans, La.
Morse, M. P. .....LeRoy
Morse, R. W. .....Minneapolis
Morsman, L. W. .....Hibbing
Mortensen, N. G. .....Minneapolis
‡ Morton, G. H. ..Scott Air Base, Ill.
Mosby, M. E. .....Long Prairie
Moses, R. R. .....Kenyon
Mouritsen, G. J. .....Fergus Falls
Moyer, J. B. .....Duluth
Mueller, S. C. .....Duluth
Muir, W. F. .....Browns Valley
‡ Mulholland, W. M. .....
Camp Atterbury, Ind.
Muller, A. E. .....No. Saint Paul
Muller, R. T. .....Saint Paul
Mulligan, A. M. .....Brainerd
Mundahl, H. P. .....Saint Paul
Munson, M. S. .....Barnum
Murphy, E. P. .....Minneapolis
Murphy, J. T. .....Saint Paul
Murphy, J. E. .....Marshall
Murray, R. A. .....Hibbing
Musachio, N. F. .....Foley
Mussey, Mary E. .....Rochester
Mussey, R. D. .....Rochester
Mussey, W. C. .....Rochester
Musty, N. J. .....Minneapolis
‡ Myers, III, C. ...San Antonio, Tex.
Myers, J. A. .....Minneapolis
Myers, T. T. .....Rochester
Myers, W. P. L. .....Rochester
Myhre, J. A. .....Minneapolis
Myre, C. R. .....Paynesville
Myre, T. T. .....Rochester

Naegeli, A. E. .....Basin, Mont.
Naegeli, Frank .....Fergus Falls
Nagel, H. D. .....Waconia
Nash, L. A. .....Saint Paul
Naslund, A. W. .....Minneapolis
Navratil, D. R. .....Montgomery
Neal, J. M. .....Minneapolis
Nealy, D. E. .....Adrian
Nealy, R. P. .....Minneapolis
Neel, H. B. .....Albert Lea
Neff, W. S. .....Virginia
Nehring, J. P. .....Preston
‡ Neils, V. E. .....Sauk Rapids
Nelson, Bernette G. .....Menagha
Nelson, Bernice A. .....Menagha
Nelson, C. A. .....Worthington
Nelson, C. B. .....Minneapolis
Nelson, C. E. J. .....Albert Lea
Nelson, D. E. .....Alexandria
Nelson, E. N. .....Minneapolis
Nelson, E. J. .....Owatonna
Nelson, G. E. .....Fairfax
Nelson, Harvey .....Minneapolis
† Nelson, H. E. .....Crookston
† Nelson, H. S. ...Los Angeles, Calif.
Nelson, K. L. .....Balaton
Nelson, L. S. .....Minneapolis
† Nelson, L. A. .....Saint Paul
Nelson, M. C. .....Minneapolis
Nelson, M. S. .....Granite Falls
Nelson, N. P. .....Minneapolis
Nelson, O. L. N. .....Minneapolis
Nelson, P. A. .....Rochester
Nelson, R. L. .....Duluth
Nelson, R. A. .....Fergus Falls
Nelson, W. I. .....Minneapolis
Nelson, W. O. B.....Fergus Falls
Nesbitt, Samuel .....Minneapolis
Nesheim, M. O. .....Emmons
Nessa, C. B. .....Saint Cloud
Nesset, L. B. .....Minneapolis
Nesset, W. D. .....Minneapolis
Neumaier, Arthur .....Glencoe
Neumann, C. A. .....Lewiston
Nichols, D. R. .....Rochester
Nicholson, J. W., III.....Rochester
Nicholson, M. A. .....Duluth
Nickerson, J. R. .....Heron Lake
Nickerson, N. D...Thief River Falls
Nielson, A. M. .....Northfield
Nietfeld, A. B. .....Warren
Nilson, H. J. .....No. Mankato
Nimlos, K. O. .....Saint Paul
Nimlos, Lenore O. .....Saint Paul
Ninneman, N. N. .....Waconia
Nixon, J. B. .....Crosby
Noble, J. F. .....Saint Paul
Noble, J. H. .....Graceville
Noble, J. L. .....Saint Paul
Noonan, W. J. .....Minneapolis
Noran, A. S. N. .....Minneapolis
Noran, H. H. .....Minneapolis
Norberg, C. E. .....Cloquet

Nord, R. E. .....Minneapolis
Nordin, G. T. .....Minneapolis
Nordland, Martin, Jr. ....Minneapolis
Nordland, Martin .....Minneapolis
Nordman, W. F. .....Mora
Norman, J. F. .....Crookston
Norris, N. T. .....Caledonia
Norval, M. A. .....Rochester
† Noth, H. W. .....Minneapolis
† Novak, E. E. .....New Prague
Nuebel, C. J. .....Hudson, Wis.
Nuessle, W. G. .....Springfield
Nuetzman, A. W. .....Faribault
Nutting, R. E. .....Duluth
Nydahl, M. J. .....Minneapolis
Nye, Katherine A. .....Saint Paul
Nye, Lillian L. .....Saint Paul
Nygren, W. T. .....Braham
Nylander, E. G. .....Minneapolis
† Nystrom, Ruth G. .....
Malibu Beach, Calif.

O'Brien, J. C. .....Saint Paul
O'Brien, L. T. .....Breckenridge
O'Cain, R. K. .....Rochester
O'Connor, D. C. .....Eden Valley
O'Connor, L. J. .....Saint Paul
O'Donnell, D. M. .....Ortonville
O'Donnell, J. E. .....Minneapolis
O'Hanlon, J. A. .....Minneapolis
O'Kane, T. W. .....Saint Paul
O'Keefe, J. P. .....Saint Cloud
O'Leary, J. H. ....Thief River Falls
O'Leary, P. A. .....Rochester
O'Neill, J. C. .....Duluth
O'Reilley, B. E. .....Saint Paul
O'Shaughnessy, E. J. .....Rochester
† Oberg, C. M. .....Minneapolis
Ochsner, C. G. .....Wabasha
Ockuly, Orville .....Saint Paul
Odel, H. M. .....Rochester
Oeljen, S. C. G. .....Waseca
Ogden, Warner .....Saint Paul
Ohage, Justus .....Saint Paul
Olds, G. H. .....New Richland
Olive, Jr., J. T. .....Rochester
Oliver, I. L. .....Graceville
Oliver, James .....Moorhead
Olmanson, E. G. .....Saint Peter
Olsen, A. M. .....Rochester
Olsen, E. G. .....Minneapolis
Olsen, R. L. .....Saint Paul
Olson, Albert E. .....Duluth
Olson, Albert J. .....Owatonna
Olson, Alton C. .....Minneapolis
Olson, Archibald O. .....Duluth
† Olson, Burton G. .....Minneapolis
Olson, Carlton K. .....Minneapolis
Olson, Charles A. .....Saint Paul
Olson, Chester J. .....Belle Plaine
Olson, Duane O. C. .....Gaylord
Olson, Ernest A. .....Pine Island
Olson, Grant E. .....West Concord
Olson, John W. .....Minneapolis
Olson, Lillian A. ....Ah-Gwah-Ching
† Olson, Olof A. .....Minneapolis
Onsgard, L. K. .....Houston
Openshaw, C. R. .....Rochester
Oppegaard, C. L. .....Crookston
Oppegaard, M. O. .....Crookston
Oppen, E. G. .....Minneapolis
‡ Orwoll, H. S. .....Decorah, Iowa
Osborn, D. O. .....Owatonna
Osborn, J. E. .....Rochester
Ostergaard, Erling .....Evansville
Ostergren, E. W. .....Saint Paul
Osterholm, R. S. .....Rochester
Ostling, B. C. .....Kerkhoven
Otto, H. C. .....Frazee
Ouellette, A. J. .....Saint Paul
Ourada, A. L. .....Waseca
Owen, H. W. .....Rochester
Owens, F. M., Jr. .....Minneapolis
Owens, W. A. .....Montevideo
*†Owre, Oscar .....Minneapolis

‡ Paciotti, V. J. .....Hibbing
Page, R. L. .....Saint Charles
Palen, B. J. .....Minneapolis
Palmer, C. F. .....Albert Lea
Palmer, H. A. .....Blackduck
† Palmer, W. L. .....Albert Lea
† Palmerton, E. S. .....Minneapolis
Pankratz, P. J. .....Mountain Lake
Papermaster, Ralph ...Two Harbors
Papermaster, T. C. .....Minneapolis
Parker, C. W. .....Wadena
† Parker, O. W. .....Duluth
Parker, R. L. .....Rochester
Parker, W. E. .....Sebeka
Parker, W. H. .....Chisholm

Parkhill, Edith M. .....Rochester
Parkin, T. W. .....Rochester
Parson, E. I. .....Duluth
Parson, E. L. B. .....Elbow Lake
Parson, L. R. .....Elbow Lake
Parsons, R. L. .....Monterey
Parsons, W. B., Jr. .....Rochester
Pasek, A. W. .....Cloquet
‡ Pasek, E. A. .....Cloquet
Patch, O. B. .....Duluth
Patterson, H. D. .....Slayton
Patterson, W. L. .....Fergus Falls
Patton, M. M., Jr. ....Eugene, Ore.
Paulson, G. S. .....Rochester
Paulson, J. A. .....Rochester
Paulson, T. S. .....Fergus Falls
Paynter, C. R. .....Rochester
Peabody, H. D., Jr. ..San Diego, Cal.
† Pearsall, R. P. .....Virginia
Pearson, B. F. .....Shakopee
Pearson, F. R. .....Saint Paul
Pearson, M. M. .....Saint Paul
Pearson, L. O. .....Erskine
Pease, Gertrude L. .....Rochester
Pedersen, A. H. .....Saint Paul
Pedersen, R. C. .....Duluth
Peluso, C. R. .....Minneapolis
Pemberton, J. de J. .....Rochester
Pender, J. W. .....Rochester
† Penhall, F. W. .....Willmar
Penk, E. L. .....Springfield
Penn, G. E. .....Mankato
Pennie, D. F. V. .....Duluth
Peppard, T. A. .....Minneapolis
Perlman, E. C. .....Minneapolis
Perrigo, V. F. .....El Cajon, Calif.
Perry, Harold .....Rochester
Person, J. P. .....Albert Lea
Pertl, A. L. .....Canby
Peters, G. A. .....Rochester
Petersen, D. H. .....Northfield
Petersen, G. L. .....Minneapolis
† Petersen, J. R. .....Minneapolis
Petersen, M. C. .....Rochester
Petersen, P. C. .....Minneapolis
Petersen, R. T. .....Saint Cloud
Petersen, W. E. .....Minneapolis
Peterson, D. B. .....Saint Paul
Peterson, D. H. .....Saint Paul
Peterson, E. N. .....Virginia
Peterson, H. O. .....Saint Paul
Peterson, H. W. .....Minneapolis
Peterson, J. L. E. .....Saint Paul
Peterson, J. H. .....Duluth
Peterson, Kenneth .....Marshall
Peterson, K. H. .....Hutchinson
Peterson, L. J. .....Reno, Nevada
Peterson, N. P. .....Minneapolis
Peterson, O. L. .....Cokato
Peterson, O. H. .....Minneapolis
Peterson, O. H., Jr. .....Minneapolis
Peterson, P. E. .....Minneapolis
Peterson, R. A. .....Vesta
Peterson, S. C. .....Austin
Peterson, W. C. .....Minneapolis
Peterson, W. E. .....Willmar
Peterson, W. H. .....Spring Valley
Peterson, W. Henry.....Minneapolis
Petit, J. V. .....Minneapolis
Petit, L. J. .....Minneapolis
Petraborg, H. T. .....Aitkin
Pewters, J. T. .....Minneapolis
Peyton, W. T. .....Minneapolis
Pfuetze, K. H. .....Chicago, Ill.
Pfunder, M. C. .....Minneapolis
Phares, O. C. .....Saint Cloud
Phares, W. S. .....Rochester
Phelps, K. A. .....Minneapolis
Philp, D. R. .....Windom
Pierce, C. H. .....Wadena
Pierce, R. B. .....Wadena
Pierson, R. F. .....Slayton
† Piper, M. C. .....LaCanada, Calif.
Piper, W. A. .....Mountain Lake
Plasha, M. K. .....Glenwood
Plass, H. F. R. .....Minneapolis
† Platou, E. S. .....Minneapolis
Pleissner, K. W. ..Saint Louis Park
Plimpton, N. C., Jr. ....Minneapolis
Plondke, F. J. .....Saint Paul
Plotke, H. L. .....Saint Paul
Pogue, R. E. .....Watertown
Pohl, D. E. .....Crookston
Pohl, J. F. M. .....Minneapolis
Poirier, J. A. .....Forest Lake
Pollard, D. W. .....Minneapolis
Pollock, D. K. .....Minneapolis
Polski, P. G. .....Saint Paul
Polzak, J. A. .....Minneapolis
Ponterio, J. E. .....Shakopee
Pool, T. L. .....Rochester
Poppe, F. H. .....Minneapolis
Porter, G. E. .....Rochester
Porter, O. M. .....Willmar
Post, D. B. .....Rochester

Potek, David ....International Falls
Potter, R. B. .....Minneapolis
Potthoff, C. J. ..Washington, D. C.
Power, J. E. .....Duluth
Powers, W. W. .....Rochester
Prangen, A. DeH. .....Rochester
Pratt, F. J., Jr. .....Minneapolis
† Pratt, F. J. .....Minneapolis
Pratt, J. H., Jr. .....Rochester
Preine, I. A. .....Minneapolis
† Preisinger, J. W. .....Renville
† Prendergast, H. J. .....Saint Paul
Preston, P. J. .....Minneapolis
Prickman, L. E. .....Rochester
Pridgen, J. E. ...San Antonio, Tex.
Priest, R. E. .....Minneapolis
Priestley, J. T. .....Rochester
† Prim, J. A. .....Minneapolis
Prins, L. R. .....Albert Lea
Proeschel, R. K. .....Willmar
Proffitt, W. E. .....Minneapolis
Proshek, C. E. .....Minneapolis
Pruitt, R. D. .....Rochester
Pugh, D. G. .....Rochester
Pumala, E. E. .....Waarren
Purves, G. H. .....Hendricks
Puumala, R. H. .....Cloquet
Pyle, Marjorie M. .....Cannon Falls

Quanstrom, V. E. .....Brainerd
Quattlebaum, Frank .....Saint Paul
Quello, R. O. B. .....Minneapolis
Quer, E. A. .....Rochester
† Quigley, W. P. ...Brooklyn, N. Y.
† Quist, H. W. .....Minneapolis
Quist, H. W., Jr. .....Minneapolis

Raadquist, C. S. .....Hibbing
Raattama, J. W. .....Keewatin
* Radabaugh, R. C. .....Hastings
Raetz, S. J. .....Maple Lake
Raihala, John .....Virginia
* Raiter, R. F. .....Cloquet
Rall, J. E. .....New York, N. Y.
Ralph, J. R. .....Saint Paul
Ralston, D. E. .....Rochester
† Ramsey, W. R. .....Saint Paul
Randall, A. M. .....Ashby
Randall, L. M. .....Rochester
Randall, R. V. .....Rochester
Randall, W. H. .Grand Forks, N. D.
Ransom, H. R. .....Osseo
† Ransom, M. L. .....Hancock
Rasmussen, R. C. .....Saint Paul
Rasmussen, W. C. .....Rochester
Ravits, H. G. .....Saint Paul
Rea, C. E. .....Saint Paul
Reader, D. R. .....Minneapolis
Reed, Paul .....Virginia
Reeve, E. A. T. .....Elbow Lake
Reff, A. R. .....Crookston
Regan, J. J. .....Minneapolis
Regnier, E. A. .....Minneapolis
Reid, J. W. .....Saint Paul
Reid, L. M. .....Excelsior
Reif, H. A. .....Minneapolis
Reif, H. J. .....Saint Cloud
Reiley, R. E. .....Minneapolis
† Reinecke, G. F. .....New Ulm
Reitemeier, R. J. .....Rochester
Reiter, R. A. .....Rochester
Reitmann, J. H. .....Sanstone
ReMine, W. H., Jr. .....Rochester
‡ Remsberg, R. R. .Camp Rucker, Ala.
† Replogle, W. H. ..Los Angeles, Calif.
Resch, J. A. .....Minneapolis
Retter, Richard .....Rochester
Rice, C. O. .....Minneapolis
Rice, Frank B. .....Minneapolis
Rice, Fred A. .....Minneapolis
Rice, H. G. .....Moorhead
Rice, Roberta G. .Grand Island, Neb.
Richards, E. T. F. .....Saint Paul
Richards, W. B. .....Saint Cloud
Richardson, E. J., Jr. ..Saint Paul
Richardson, H. E. .....Saint Paul
Richardson, R. J. .....Saint Paul
Richdorf, L. F. .....Minneapolis
Rick, P. F. W. .....Saint Paul
Riddell, R. V. .....Lowell, Mass.
† Ridgway, A. M. .....Annandale
Ridley, R. W. .....Rochester
Rieke, W. W. .....Wayzata
Rieschl, Elizabeth K. .....Jordan
Rigler, L. G. .....Minneapolis
‡ Rigler, R. G. .....Portsmouth, Va.
Ringle, O. F. .....Walker
Rinkey, Eugene .....Saint Paul
Riordan, Elsie M. .....Minneapolis
Ripley, H. R. .....Rochester
Risch, R. E. .....Minneapolis

Risser, A. F. ..... Stewartville
Ritchie, W. P. ..... Saint Paul
Ritt, A. E. ..... Saint Paul
Rizer, D. K. ..... Minneapolis
Rizer, R. I. ..... Minneapolis
Robb, E. F. ..... Minneapolis
† Robbins, C. P. ..... Winona
Robbins, O. F. ..... Minneapolis
Roberts, L. J. ..... Minneapolis
Roberts, O. W. ..... Owatonna
Roberts, S. W. ..... Minneapolis
† Roberts, W. B. ..... Minneapolis
† Robertson, J. B. ..... Minneapolis
Robertson, P. A. ..... Austin
Robilliard, C. M. ..... Faribault
Robinett, R. W. ..... Worthington
Robinson, A. W. ..... Rochester
Robinson, C. O. ..... Saint Paul
† Robinson, J. M. ..... Duluth
Rocknem, R. E. ..... Minneapolis
Rockwell, C. V. ..... Minneapolis
Rockwood, P. H. ..... Fergus Falls
† Rodda, F. C. ..... Minneapolis
Rodgers, R. S. ..... Minneapolis
Roehlke, A. B. ..... Elk River
Roemer, H. J. ..... Winona
Rogers, C. W. ..... Winona
Rogers, S. F. ..... Saint Paul
Rogin, Norton ..... Farmington
Rogne, W. G. ..... Spring Grove
Roholt, C. L. ..... Waverly
Roholt, H. B. ..... Fosston
Rohrer, C. A. ..... Waterville
Rokala, H. E. ..... Virginia
Rolig, D. H. ..... Saint Paul
Rollins, T. G. ..... Elmore
Rome, H. P. ..... Rochester
Romness, J. O. ..... Rochester
† Rood, D. C. ..... Duluth
Rooke, E. D. ..... Rochester
Rose, J. T. ..... Lakefield
Rosendahl, F. G. ..... Minneapolis
Rosenfield, A. B. ..... Minneapolis
Rosenholtz, B. I. ..... Saint Paul
Rosenow, J. H. ..... Minneapolis
Rosenthal, F. H. ..... Austin
Rosenthal, Robert ..... Saint Paul
Rosenwald, R. M. ..... Minneapolis
Rosin, J. D. ..... Rochester
Ross, A. J. ..... Minneapolis
Rossberg, R. A. ..... Morris
Rossen, R. X. ..... Hastings
Roth, G. C. ..... Saint Paul
Rothschild, H. J. ..... Saint Paul
Rotnem, O. M. ..... Harmony
Roust, H. A. ..... Montevideo
Routley, E. F. ..... Rochester
Rovelstad, R. A. ..... Rochester
Rowe, O. W. ..... Duluth
Rowe, W. H. ..... Fairmont
Roy, P. C. ..... Saint Paul
Rozycki, Anthony ..... Pine River
Rucker, C. W. ..... Rochester
Rucker, W. H. ..... Minneapolis
Rud, N. E. ..... Minneapolis
Rudell, G. L. ..... Minneapolis
Rudie, C. N. ..... Saint Peter
Rudie, P. S. ..... Duluth
Ruggles, G. M. ..... Forest Lake
† Ruhberg, G. M. ..... Tarzana, Calif.
‡ Rumpf, C. W. ..... Faribault
Runquist, J. M. ..... Duluth
Rushton, J. G. ..... Rochester
Russ, H. H. ..... Blue Earth
Russeth, A. N. ..... Minneapolis
Rustad, Ian ..... Rochester
Rusten, E. M. ..... Minneapolis
Rutherford, W. C. ..... Brainerd
Rutledge, L. H. ..... Detroit Lakes
Ryan, J. D. ..... Saint Paul
Ryan, J. J. ..... Saint Paul
Ryan, J. M. ..... Saint Paul
* Ryan, M. E. ..... Saint Paul
Ryan, W. J. ..... Duluth
Rydburg, W. C. ..... Minneapolis
Rydell, J. R. ..... Rochester
Ryding, V. T. ..... Dallas, Texas
† Rydland, A. D. ..... Minneapolis
Rygh, H. N. ..... Atwater
Rynda, E. R. ..... New Prague
Rynearson, E. H. ..... Rochester

‡ St. Cyr, H. M., Jr. .....
Camp McCoy, Wisc.
St. Cyr, K. J. ..... Robbinsdale
Sach-Rowitz, Alvan ..... Moose Lake
Sadler, W. P., Jr. ..... Minneapolis
Saffert, C. A. ..... New Ulm
Sahr, W. G. C. ..... Hutchinson
Salassa, R. M. ..... Rochester
Saliterman, B. I. ..... Minneapolis
Salk, R. J. ..... Herman
Salter, R. A. ..... Virginia

Samuelson, L. G. ..... Mankato
Samuelson, Samuel ..... Minneapolis
Sandeen, R. M. ..... Saint Paul
Sandell, S. T. ..... Nopeming
†* Sanderson, E. T. ..... Alexandria
Sanderson, D. J. ..... Princeton
Sandt, K. E. ..... Minneapolis
Sandven, N. O. ..... Paynesville
† Sanford, A. H. ..... Rochester
Sanford, J. A. ..... Savage
‡ Sanford, J. B. .. Battle Creek, Mich.
Sanford, R. A. ..... Minneapolis
Sarff, O. E. ..... Duluth
Sargent, E. C. ..... Austin
Sarnecki, M. M. ..... Saint Paul
Satersmoen, Theodore .....
Pelican Rapids
Sather, E. L. ..... Fosston
Sather, E. R. ..... Alexandria
Sather, G. A. ..... Fosston
Sather, R. N. ..... Fosston
Sather, R. O. ..... Crookston
Satterlee, H. W. ..... Lewiston
Satterlund, V. L. ..... Saint Paul
Sauer, W. G. ..... Rochester
Saunders, B. H., Jr. ..... Rochester
Savage, F. J. ..... Saint Paul
Sawatzky, W. A. ..... Minneapolis
Sax, M. H. ..... Duluth
Sax, S. G. ..... Duluth
Saxman, Gertrude O. ... Georgetown
Saxon, R. F., Jr. ..... Rochester
Sayre, G. P. ..... Rochester
‡ Sborov, A. M. ... Ft. McClellan, Ala.
Scanlon, P. W. ..... Rochester
Schaaf, F. H. K. ..... Minneapolis
† Schaar, Frances E. ..... Minneapolis
Schade, F. L. ..... Worthington
Schaefer, J. F. ..... Owatonna
* Schaefer, Samuel ..... Winona
Schaefer, W. G. ..... Minneapolis
Schamber, W. F. ... Parkers Prairie
Schatz, F. J. ..... Saint Cloud
Scheidel, A. McK. .....
Aberdeen, So. Dak.
Scheifley, C. H. ..... Rochester
† Scheldrup, N. H. ..... Minneapolis
Schell, R. F. ..... Rochester
Scherbel, A. L. ..... Cleveland, Ohio
Scherer, L. R. ..... Minneapolis
Scherling, S. S. ..... Minneapolis
Schiele, B. C. ..... Minneapolis
Schimelpfenig, G. T. ..... Chaska
Schirber, M. J. ..... Grand Rapids
Schlesselman, G. H. .... Minneapolis
Schmid, J. F. ..... Duluth
Schmidt, G. F. ..... Minneapolis
Schmidt, H. W. ..... Rochester
Schmidt, H. R. ..... Winona
Schmidt, J. R. ..... Mountain Lake
† Schmidt, P. A. ..... Monroe, Oregon
Schmidt, P. G., Jr. .... Granite Falls
Schmidt, R. F. ..... Alden
Schmidtke, R. L. ..... Saint Paul
† Schmitt, S. C. .... San Diego, Calif.
Schmitz, A. A. ..... Mankato
Schmitz, E. J. ..... Seattle, Wash.
Schmitz, G. P. ..... Little Falls
†* Schneider, J. P. ..... Minneapolis
Schneider, L. E. ..... Duluth
Schneider, P. J. ..... Adams
† Schneider, R. A. .. New York, N. Y.
Schoch, R. B. J. ..... Saint Paul
Schoeneberger, P. B. ..... Perham
Scholpp, O. W. ..... Hutchinson
Scholz, D. A. ..... Rochester
Schons, Edward ..... Saint Paul
*† Schottler, G. J. ..... Dexter
Schottler, M. E. ..... Minneapolis
Schroder, C. H. ..... Duluth
Schroeckenstein, H. F. ... Saint Paul
Schroeder, A. J. ..... Minneapolis
Schroeppel, J. E. ..... Winthrop
Schulberg, V. A. ..... Arlington
† Schuldt, F. C. ..... Saint Paul
† Schultz, J. A. ..... Albert Lea
Schultz, J. H. ..... Minneapolis
Schultz, P. J. ..... Minneapolis
Schulze, A. G. ..... Saint Paul
Schulze, W. M. ..... Minneapolis
Schutz, E. S. ..... Mountain Lake
Schwartz, V. J. ..... Minneapolis
Schweiger, T. R. ..... Hibbing
*† Schwyzer, Gustav ..... Minneapolis
Schwyzer, H. C. ..... Saint Paul
Scott, E. E. ..... Saint Paul
† Scott, F. H. ..... Minneapolis
Scott, H. G. ..... Minneapolis
Scribner, B. H. ..... Rochester
Scudamore, H. H. ..... Rochester
Seaberg, J. A. ..... Minneapolis
Seagle, J. B. ..... Rochester
Seale, Ruth A. ..... Rochester
† Seashore, Gilbert ..... Minneapolis
Seebach, Lydia M. ..... Rochester

Seery, T. M. ..... Austin
† Segal, M. A. ..... Minneapolis
Seifert, M. H. ..... Excelsior
Seifert, O. J. ..... New Ulm
Sekhon, M. S. ..... Saint Paul
Seldon, T. H. ..... Rochester
Seljeskog, S. R. ..... Minneapolis
Sellers, G. K. ..... Dassel
Selmo, J. D. ..... Norwood
Semsch, R. D. ..... Minneapolis
† Senkler, G. E. ..... Saint Paul
Senn, E. W. ..... Owatonna
Sether, A. F. ..... Ruthton
Setzer, H. J. ..... Saint Paul
Shandorf, J. F. ..... Minneapolis
Shands, W. C. ..... Rochester
Shannon, W. R. ..... Saint Paul
Shaperman, Eva P. ..... Minneapolis
Shapiro, M. J. ..... Minneapolis
Shapiro, S. K. ..... Minneapolis
Sharp, D. V. ..... Minneapolis
Shaw, H. A. ..... Minneapolis
Shea, A. W. ..... Minneapolis
Sheedy, C. L. ..... Austin
† Shellman, J. L. .....
Pacific Palisades, Calif.
Sheppard, C. G. ..... Hutchinson
Sher, D. A. ..... Virginia
Sher, Lewis ..... Minneapolis
† Sherman, A. G. ..... Minneapolis
Sherman, C. H. ..... Bayport
Sherman, C. L. ..... Luverne
Sherman, H. T. ..... Cambridge
Sherman, L. F. ..... Minneapolis
Sherman, R. V. ..... Red Wing
Sherwood, G. E. ..... Kimball
Shick, R. M. ..... Rochester
‡ Shimonek, S. W. ... Great Lakes, Ill.
‡ Shocket, Everett ..... Dayton, Ohio
Sholl, P. R. ..... Rochester
Short, Jacob ..... Saint Paul
* Shrader, E. E. ..... Watertown
Shronts, J. F. ..... Minneapolis
Sickels, E. W. ..... Saint Paul
Siegel, Clarence ..... Saint Paul
Siegel, J. S. ..... Virginia
Siegmann, W. C. ..... Minneapolis
‡ Siekert, R. G. ..... Philadelphia, Pa.
Siemon, Glenn ..... Rochester
Silver, J. D. ..... Minneapolis
Simison, Carl ..... Barnesville
Simon, T. R. ..... Saint Cloud
Simons, B. H. ..... Chaska
Simons, E. J. ..... Minneapolis
† Simons, J. H. ..... Minneapolis
Simons, L. T. ..... Saint Paul
Simmons, W. H. ..... Rochester
Simonson, D. B. ..... Minneapolis
Simonton, K. MacL. ..... Rochester
Simpson, E. D. ..... Minneapolis
Sinamark, Andrew ..... Hibbing
Singer, B. J. ..... Saint Paul
Sinykin, M. B. ..... Minneapolis
Siperstein, D. M. ..... Minneapolis
Sisk, H. E. ..... Saint Cloud
Sisler, C. E. ..... Grand Rapids
Sisterman, T. J. ..... Minneapolis
† Sivertsen, Andrew ..... Minneapolis
† Sivertsen, Ivar ..... Minneapolis
Sjoding, J. D. ..... Mankato
Sjostrom, L. E. ..... Saint Peter
Skaug, H. M. ..... Chatfield
Skinner, Abbott ..... Saint Paul
† Skinner, H. O. ..... Saint Paul
Skjold, A. C. ..... Minneapolis
Skogerboe, R. B. ..... Karlstad
Slater, S. A. ..... Worthington
Slocumb, C. H. ..... Rochester
Smiley, J. T. ..... Minneapolis
Smisek, E. A. ..... Saint Paul
Smisek, F. M. E. ..... Minneapolis
Smith, Adam M. ..... Minneapolis
Smith, Archie M. ..... Minneapolis
Smith, B. A., Jr. ..... Minneapolis
Smith, C. M. ..... Duluth
Smith, D. V. ..... Blue Earth
Smith, Franklin R. ... Seattle, Wash.
† Smith, Fredk. L. ..... Rochester
Smith, George R. ..... Hutchinson
Smith, Graham G. ..... Minneapolis
Smith, H. L. ..... Rochester
Smith, H. R. ..... Minneapolis
Smith, Leon G. ..... Montevideo
Smith, Lloyd A. ..... Tyler
Smith, Lucian A. ..... Rochester
† Smith, Margaret I. ..... Robbinsdale
Smith, Marie A. ..... Minneapolis
† Smith, Myron W. ..... Red Wing
Smith, N. D. ..... Rochester
Smith, N. M. ..... Minneapolis
Smith, N. R. ..... Minneapolis
Smith, Paul M. ..... Lake Crystal
Smith, T. S. ..... Minneapolis
Smith, V. D. E. ..... Saint Paul
Smith, W. R. ..... Grand Marais

Smorszczok, Mitrofan ....Monticello
Smyth, J. J. .....Lester Prairie
Snyder, C. D. .....Kiester
Snyder, G. W. .....Saint Paul
Snyker, O. E. .....Ely
Soderlind, R. T. .....Minneapolis
Sogge, L. L. .....Windom
Sohlberg, O. I. .....Saint Paul
† Sohmer, A. E. J. .....Mankato
Solhaug, S. B. .....Minneapolis
Solsem, F. N. S. .....Spicer
Solvason, H. M. .....Minneapolis
Sommers, Ben .....Saint Paul
Sonnesyn, N. N. .....Le Sueur
Sorem, M. B. .....Saint Paul
Sorum, F. T. .....Jasper
Soucheray, P. H. .....Saint Paul
Soule, E. H. .....Rochester
Souster, B. B. .....Saint Paul
Spang, A. J. .....Duluth
Spang, J. S. .....Duluth
Spano, J. P. .....Minneapolis
Spear, H. C. .....Rochester
Spear, I. M. .....Rochester
Spencer, B. J. .....Rochester
Spink, W. W. .....Minneapolis
Spock, B. M. .....Pittsburgh, Pa.
Sponsel, K. H. .....Minneapolis
Sprafka, J. L. .....Saint Paul
Sprafka, J. M. .....Saint Paul
Sprague, R. G. .....Rochester
† Spratt, C. N. .....Minneapolis
Spurzem, R. J. .....Anoka
Stahler, P. A. .....Jordan
Stahr, A. C. .....Hopkins
Stam, John .....Worthington
Stanford, C. E. .....Minneapolis
Stangl, P. E. .....Saint Cloud
Stanley, C. R. .....Worthington
Stapley, L. A., Jr. .....Rochester
Starekow, M. D. ..Thief River Falls
Stark, D. B. .....Rochester
State, David .....Minneapolis
‡ Staub, H. P. .....
Ft. Leonard Wood, Mo.
Stauffer, M. H. .....Rochester
Steffens, L. A. .....Red Wing
Stein, K. E. .....Lakeville
Stein, R. J. .....Pierz
Steinberg, C. L. .....Saint Paul
Steiner, I. W. .....Winona
Steiner, L. E. .....Albert Lea
Stelter, L. A. .....Minneapolis
Stemsrud, H. L. .....Alexandria
‡ Stennes, J. L. .....
Camp Atterbury, Ind.
* Stephan, E. E. .....Hinckley
Sterner, D. C. .....Saint Paul
Sterner, E. G. .....Saint Paul
Sterner, E. R. .....Saint Paul
Sterner, J. J. .....Saint Paul
* Sterner, O. W. .....Saint Paul
Stevenson, B. M. .....Fulda
Stevenson, F. W. .....Faribault
Stewart, Alexander .....Saint Paul
Stewart, D. E. .....Crookston
Stewart, M. J. .....Minneapolis
Stewart, R. I. .....Minneapolis
Stickney, J. M. .....Rochester
‡ Stiegler, F. S. ..Nurenberg, Germany
Stillwell, W. C. .....Mankato
Stilwell, G. G. .....Rochester
Stinson, J. C., Jr. .....Rochester
Stoesser, A. V. .....Minneapolis
Stolpestad, A. H. .....Saint Paul
Stolpestad, H. L. .....St. Paul
† Stomel, Joseph ...Los Angeles, Calif
‡ Stone, N. F. .....Chicago, Ill.
Stone, S. P. .....Minneapolis
Storsteen, K. A. .....Rochester
Stowe, H. R. .....Rochester
Stoy, R. A. .....Little Falls
† Strachauer, A. C. .....Minneapolis
Strandjord, N. M. .....Virginia
Stransky, T. W. .....Owatonna
Strate, G. E. .....Saint Paul
Strathern, C. S. .....Saint Peter
† Strathern, F. P. .....Saint Peter
† Strathern, M. L. .....Gilbert
Stratte, A. K. .....Pine City
Stratte, H. C. .....Windom
Straus, M. L. .....Saint Paul
Strauss, E. C. .....Duluth
Street, Bernard .....Northfield
Strem, E. L. .....Saint Paul
Strewler, G. J. .....Duluth
Strickler, J. H. .....Minneapolis
Strobel, W. G. .....Duluth
Stroebel, C. F., Jr. .....Rochester
Strom, G. W. .....Minneapolis
Stromgren, D. T. .....Minneapolis
Stromme, W. B. .....Minneapolis
* Stuart, A. B. .....Cloquet
Studer, D. J. .....Faribault
Stuhler, L. G. .....Rochester
Stuhr, J. W. .....Stillwater
Sturges, R. L. .....Minneapolis
Sturley, R. F. .....Saint Paul
† Subby, Walter .....Minneapolis
Sukov, Marvin .....Minneapolis
† Sutherland, C. G. .....Rochester
Sutherland, H. N. .....Ely
Sutherland, W. H. .....Benson
Sutton, H. R. .....Hoffman
Swanson, J. A. .....Saint Paul
Swanson, L. J. ....West Saint Paul
Swanson, R. E. .....Minneapolis
† Swanson, V. F. ..Los Angeles, Calif.
Swedberg, W. A. .....Duluth
Swedenburg, P. A. .....Glenwood
Sweetser, H. B., Jr. ....Minneapolis
Sweetser, T. H. .....Minneapolis
† Sweitzer, S. E. .....Minneapolis
† Swendseen, C. G. .....Minneapolis
Swendson, J. J. .....Saint Paul
Swensen, R. G. .....North Branch
Swenson, A. O. .....Duluth
Swenson, O. J. .....Waseca

Takaro, Timothy .....Rochester
Tangen, G. M. .....Minneapolis
Tanquist, E. J. .....Alexandria
Taylor, A. B. .....Rochester
Taylor, B. E. .....Lincoln, Neb.
*† Taylor, C. W. .....Duluth
Taylor, J. H. .....Minneapolis
Taylor, L. M. .....Rochester
Taylor, R. W., Jr. .....Rochester
Teich, K. W. .....Duluth
Teisberg, C. B. .....Saint Paul
Teisberg, J. E. .....Saint Paul
Teitgen, R. E. .....Milwaukee, Wis.
Tenner, R. J. .....Minneapolis
Terrell, B. J. .....Nopeming
Terry, W. S. .....Minneapolis
Tesch, G. H. .....Elk River
‡ Tetlie, J. P. ....Camp Carson, Colo.
† Thabes, J. A., Sr. .....Brainerd
Thabes, J. A., Jr. .....Brainerd
Thayer, E. A. .....Fairmont
Thelen, E. P. .....Rochester
Thielen, R. D. .....Saint Michael
Thomas, G. E. .....Minneapolis
† Thomas, G. H. .....Minneapolis
Thomas, W. H. .....Howard Lake
Thomes, A. B. .....Minneapolis
Thompson, Arthur .....Cokato
Thompson, C. O. .....Hendricks
Thompson, F. A. .....Saint Paul
Thompson, G. J. .....Rochester
Thompson, H. B. .....Saint Cloud
Thompson, W. H. .....Minneapolis
Thomson, J. M. .....Minneapolis
Thoreson, M. C. Bernice .....
South Saint Paul
Thorsen, D. S. .....Saint Paul
Thorson, S. V. .....Minneapolis
Thysell, Desmond M. ...Minneapolis
Thysell, Fred A. .....Moorhead
Thysell, V. D. .....Hawley
* Tibbetts, M. H. .....Duluth
Tifft, C. R. .....Saint Paul
Tihen, E. N. .....Rochester
Tillisch, J. H. .....Rochester
† Tingdale, A. C. .....Minneapolis
Tingdale, Carlyle .....Hibbing
Tinkham, R. G. .....Minneapolis
Titrud, L. A. .....Minneapolis
Tobin, John D. .....Minneapolis
Tobin, John R., Jr. .....Rochester
Todd, Romona L. .....Minneapolis
Tompkins, R. G. .....Rochester
† Torgerson, Wm. B. .....Oklee
Tosseland, N. E. .....Duluth
Trach, B. B. .....Minneapolis
Tracht, R. R. .....Saint Paul
Traeger, Carl A. .....Faribault
Travis, James S. .....Saint Paul
Traxler, J. F. .....Henderson
Tregilgas, H. R. ..South Saint Paul
* Trommald, Gladys .....Brainerd
Troost, H. B. .....Mankato
Trow, James E. .....Minneapolis
Trow, Wm. H. .....Minneapolis
Trueman, H. S. .....Minneapolis
Truesdale, C. W. .....Glencoe
Trutna, T. J. .....Silver Lake
Tudor, R. B. .....Minneapolis
† Tunstead, H. J. .....Minneapolis
Tuohy, E. L. .....Duluth
† Turnacliff, D. D. .....Saint Paul
† Tweedy, Geo. J. .....Winona
Tweedy, J. A. .....Winona
Tweedy, R. B. .....Winona
Twiggs, L. F. .....Austin
† Twomey, J. E. .....Minneapolis

Ude, Walter H. .....Minneapolis
Uhley, C. G. .....Crookston
Uihlein, Alfred .....Rochester
† Ulrich, Henry L. .....Minneapolis
Ulvestad, H. S. .....Minneapolis
Undine, C. A. .....Minneapolis
Upson, Mark, Jr. .....Rochester
Urberg, S. E. .....Duluth
‡ Utne, J. R. .....Northfield
Utz, John P. .....Rochester
Uzmann, John W. .....
Lynbrook, Long Island, N. Y.

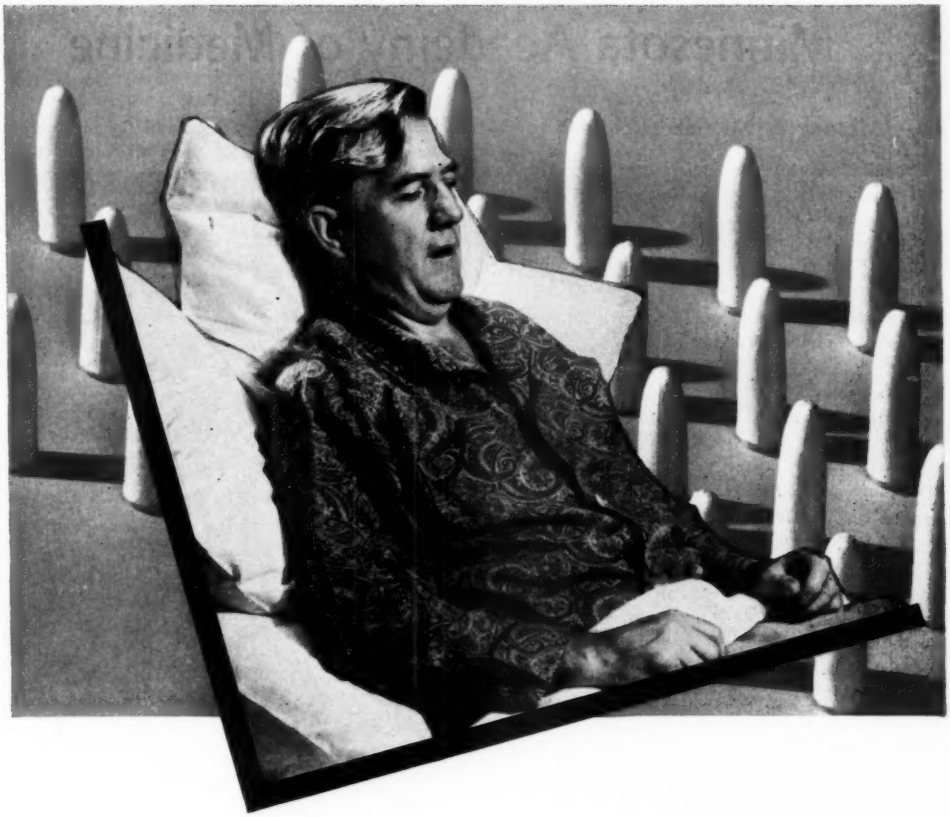
Vadheim, A. L. .....Tyler
Vadheim, L. A. .....Rochester
Valenti, D. A. .....Thief River Falls
Valentine, W. H. .....Tracy
Van Cleve, H. P., Jr. .....Austin
Van Bergen, F. H. .....Minneapoli
Vandersluis, C. W. .....Bemidji
Van Herik, Martin .....Rochester
Van Meier, Henry .....Stillwater
Van Patter, Ward .....Rochester
Van Rooy, G. T. ..Thief River Falls
Van Ryzin, D. J. .....Duluth
Van Valkenberg, J. D. ..Floodwood
Van Vleet, Mary E. .....Rochester
Varco, R. L. .....Minneapolis
Vaughan, V. M. .....Truman
‡ Vaughn, C. G. .....
Ft. Leonard Wood, Mo.
Vaughn, L. D. .....Rochester
Veirs, D. M. .....Saint Paul
Veirs, Ruby J. S. .....Saint Paul
Venables, A. E. .....Saint Paul
Veranth, L. A. .....Saint Cloud
Verby, J. E., Jr. .....Litchfield
Vezina, J. C. .....Mapleton
Vik, Arthur E. .....Minneapolis
Vik, Melvin .....Onamia
Virnig, Mark P. .....Wells
Virnig, Richard P. .....Wells
Vogel, H. A. L. .....New Ulm
Vollmer, F. J. .....Winona
von Amerongen, W. W. ..Saint Paul
Von Drasek, J. .....Mankato
Vrtiska, F. L. .....Saint Cloud

Waas, C. W. .....Saint Paul
Wadd, C. T. .....Janesville
Wagener, H. P. .....Rochester
Wagner, N. W. .....Graceville
Wahlquist, H. F. .....Minneapolis
Wakefield, E. G. .....Rochester
† Wakim, K. G. .....Rochester
Walder, H. J. .....Duluth
Waldron, C. W. .....Minneapolis
Walfred, K. A. .....Saint Cloud
† Walker, A. E. .....Duluth
Walker, Arthur E. .....Saint Paul
Wall, C. R. .....Minneapolis
Wallace, M. O. .....Duluth
† Waller, J. D. .....Pine City
Walsh, Edw. F. .....Saint Paul
Walsh, F. M. .....Minneapolis
Walsh, W. T. .....Minneapolis
Walter, C. Wm. .....Saint Paul
Walter, F. H. ...International Falls
Walter, Guy F. .....Farmington
Walters, Waltman .....Rochester
Wandke, O. E. .....Fairmont
Wang, Jun-Chuan .....Minneapolis
Wangensteen, O. H. ...Minneapolis
Ward, Louis E. .....Rochester
† Ward, Peter D. .....Saint Paul
Ward, Percy A. .....Minneapolis
Warner, James J. .....Perham
Warren, C. A. .....Saint Paul
Wasson, L. F. .....Alexandria
Watkins, C. H. .....Rochester
‡ Watkins, J. A. .....Windom
Watson, A. M. .....Royalton
Watson, C. G. .....Minneapolis
Watson, C. J. .....Minneapolis
Watson, J. B. .....Rochester
Watson, J. R. .....Rochester
Watson, P. Theo. .....Saint Paul
Watson, Percy T. .....Minneapolis
‡ Watson, R. M. ..Camp Rucker, Ala.
Watson, S. Wm. .....Royalton
Watson, Wm. H. A. .....Saint Paul
Watson, Wm. J. .....Newport
Watz, C. E. .....Saint Paul
Waugh, J. M. .....Rochester
† Weaver, M. M. .....
Vancouver, B. C., Canada
Weaver, P. H. .....Faribault
Webb, E. A. .....Minneapolis
Webb, James H. .....Rochester
Webb, R. C. .....Minneapolis
Webber, F. L. .....Saint Paul

Webber, R. J. .....Hopkins
Weber, H. M. .....Rochester
Weber, W. E. .....Rochester
Wedes, D. J. .....Belgrade
Weed, L. A. .....Rochester
Weir, J. F. .....Rochester
Weis, B. A. .....Saint Paul
Weisberg, Maurice .....Saint Paul
Weisberg, R. J. .....Minneapolis
Wellman, T. G. .....Clinton, Iowa
Wellman, Wm. E. .....Rochester
Wells, A. H. .....Duluth
Wells, W. B. .....Jackson
Wendland, J. P. .....Minneapolis
Wenner, W. T. .....Saint Cloud
Wente, H. A. .....Rochester
† Wentworth, A. J. .....Mankato
Wenzel, G. P. .....Saint Paul
Werner, George .....Minneapolis
Wesolowski, S. P. .....Minneapolis
† West, Catherine C. .....Minneapolis
Westby, Magnus .....Madison
† Westerman, A. E. .....Montgomery
Westerman, F. C. .....Montgomery
‡ Westphal, K. F. .....Portland, Ore.
Westrup, J. E. .....Lanesboro
† Wethall, A. G. .....Minneapolis
Wetherby, M. .....Minneapolis
Wetzel, E. V. .....Saint Cloud
Weum, T. Wm. .....Minneapolis
Weyand, R. D. .....Rochester
‡ Weyhrauch, R. A. .....Phoenix, Ariz.
Wheeler, D. W. .....Duluth
† Wheeler, M. W. .....Lake Elmo
† Whitacre, J. C. .....Saint Paul
White, Asher A. .....Minneapolis
White, S. Marx .....Minneapolis
White, W. D. .....Minneapolis
Whitesell, L. A. .....Minneapolis
Whitney, R. A. .....Cambridge
Whitson, S. A. .....Albert Lea
Whittemore, D. D. .....Bemidji
Widen, W. F. .....Minneapolis
Wikoff, H. M. .....Bemidji
† Wilcox, A. E. .....Minneapolis
Wilcox, G. C. .....Saint Peter
† Wilder, K. W. .....Minneapolis
Wilder, R. L. .....Minneapolis
Wilder, R. M., Jr. .....Minneapolis
Wilhelm, W. F. .....Rochester
Wilken, P. A. .....Minneapolis
† Wilkinson, Stella L. .....Faribault
Wilkowske, R. J. .....Owatonna
Will, C. B. .....Bertha
Will, W. W. .....Bertha
† Willcutt, C. E. .....Phoenix, Ariz.
Williams, A. B. .....Saint Paul
Williams, B. F. P. .....Duluth
Williams, C. A. .....Pipestone
Williams, C. K. .....Saint Paul
Williams, H. L., Jr. .....Rochester
Williams, H. O. .....Lake Crystal
Williams, J. A. .....Saint Paul
Williams, L. B. .....Rochester
† Williams, L. A. .....Portland, Ore.
Williams, M. M. .....Ah-Gwah-Ching
Williams, M. R. .....Cannon Falls
† Williams, R. V. .....Rushford
† Williams, Robert .....Carthage, Ill.
Williamson, H. A. .....Heron Lake
Willius, F. A. .....Rochester
Wilmot, C. A. .....Litchfield
Wilmot, H. E. .....Litchfield
Wilson, C. E. .....Blue Earth
Wilson, F. C. .....Austin
Wilson, J. A. .....Saint Paul
Wilson, J. V. .....Saint Paul
Wilson, R. B. .....Rochester
Wilson, R. H. .....Winona
Wilson, Russell H. .....Minneapolis
Wilson, V. O. .....Rochester
Wilson, W. E. .....Northfield
† Wilson, Wm. F. .....Lake City
† Wiltrout, I. G. .....Oslo
Winburn, J. R. .....Rochester
Winchester, Wm. W. .....Rochester
Wingquist, C. G. .....Crosby
Winnick, J. B. .....Saint Paul
Winter, J. A. .....Duluth
Winther, Nora M. C. .....Minneapolis
Wipperman, F. F. .....Minneapolis
Wisness, O. A. .....Slav
Witham, C. A. .....Minneapolis
Wittich, F. W. .....Minneapolis
Wittrock, L. H. .....Watkins
Wohlrabe, A. A. .....Minneapolis
Wohlrabe, A. C. .....Minneapolis
Wohlrabe, C. F. .....No. Mankato
Wohlrabe, E. J. .....Springfield
Wold, Karl C. .....Saint Paul
Wolf, A. H. .....Minneapolis
Wolff, Helen B. .....Worthington
Wolff, H. J. .....Saint Paul
Wolkoff, H. J. .....Saint Paul
Wollaeger, E. E. .....Rochester
Wolstan, S. D. .....Minneota
Woltjen, M. J. .....Rushford
Woltman, H. M. F. .....Rochester
† Wood, Harry G. .....Rochester
† Wood, R. A. .....Minneapolis
Woolling, K. R. .....Rochester
Woolner, L. B. .....Rochester
Word, H. L. .....Saint Paul
Worden, R. E. .....Columbus, Ohio
Workman, W. G. .....Tracy
† Wray, Wm. E. .....Campbell
Wright, R. R. .....Austin
Wright, S. M. .....Rochester
Wright, W. S. .....Minneapolis
Wright, Wm. S. .....Minneapolis
Wurdemann, Alma L. .....
White Bear Lake
Wyatt, O. S. .....Minneapolis
Wynne, H. M. N. .....Minneapolis

Yaeger, W. W. .....Marshall
Ylvisaker, R. S. .....Minneapolis
Yoerg, O. W. .....Minneapolis
Young, H. H. .....Rochester
Young, T. O. .....Duluth
Younger, L. I. .....Winona
Youngren, E. R. .....Saint Paul

Zachman, A. H. .....Melrose
Zachman, L. L. .....Saint Paul
Zaworski, L. A. .....Minneapolis
Zeigler, C. M. .....Pine River
Zemke, E. E. .....Fairmont
Zick, Luther H. .....Rochester
Zierold, A. A. .....Minneapolis
Zimmer, F. E. .....Rochester
Zimmerman, H. B. .....Saint Paul
Zinter, F. A. .....Minneapolis
Ziskin, Thos. .....Minneapolis
*† Zlatovski, M. L. .....Duluth
Zupanc, E. A. .....Duluth



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Feinberg, S. M.: Asthma—Present Status of Therapy, Chicago M. Soc. Bull. 51:1062 (June 18) 1949.

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Minnesota Academy of Medicine

Meeting of November 8, 1950

The regular monthly meeting of the Minnesota Academy of Medicine was held at the Town and Country Club on Wednesday evening, November 8, 1950. Dinner was served at 7 o'clock and the meeting was called to order at 8:10 p.m. by the President, Dr. William A. Hanson.

There were forty-nine members and one guest present.

Minutes of the October meeting were read and approved.

There was some discussion regarding the new amendments to the Articles of Incorporation, but a motion was finally passed that those articles in question be reported back to the committee from which they came for rewording, and to be reported at a later meeting.

A motion was carried that the election of new members be deferred until the next regular election in April, 1951.

Dr. Theodore Sweetser read the following Memorial to Dr. A. E. Cardle, and a motion was carried that it be spread on the records of the Academy and a copy sent to the family.

ARCHIBALD E. CARDLE
1899-1950

The loss of Archibald Cardle in the airplane disaster of June 23, 1950, was a shock to Minneapolis and to the medical profession of Minnesota and the nation. His accomplishments were well known, as was the promise of his future.

We who knew him personally through the years realized what a loss he would be to his profession in its scientific efforts as well as in its relations to the rest of the population. But more than that, we realized that we had lost a patient, understanding, kindly colleague and friend.

Our knowledge of his life here makes us sure that he has attained a well-earned reward. But we know how sorely he is missed by his friends, and especially by his family, to whom we wish to express our heartfelt sympathy.

* * *

The scientific program followed.

Dr. Charles H. Slocumb, of Rochester, by invitation, gave the paper of the evening, entitled "Use of Cortisone and ACTH in Rheumatoid Arthritis." Lantern slides were shown.

The meeting was adjourned.

WALLACE P. RITCHIE, M.D., *Secretary*

Meeting of December 13, 1950

The regular monthly meeting of the Minnesota Academy of Medicine was held at the Town and Country Club on Wednesday evening, December 13, 1950. Dinner was served at 7 o'clock and the meeting was called to order at 8:15 p.m. by the President, Dr. William A. Hanson.

There were fifty-nine members and twenty-two guests present.

The following men were elected as officers for the year 1951:

President.....Dr. William Hengstler, Saint Paul
Vice President.....Dr. O. H. Wangensteen, University of Minnesota
Secretary-Treasurer.....Dr. Wallace P. Ritchie, Saint Paul (Re-elected)

This meeting was in "Special Commemoration of the Twentieth Anniversary of the First Publications on Intestinal Obstruction by Dr. Owen H. Wangensteen."

Dr. Claude F. Dixon, of Rochester, had been invited to give the paper of the evening. He chose as his subject, "Prognostic Factors in Colonic Malignancy" (See page 424).

The meeting was adjourned.

WALLACE P. RITCHIE, M.D., *Secretary*

WARNING STATEMENT TO BE INCLUDED IN AUREOMYCIN HYDROCHLORIDE, CHLORAMPHENICOL AND TERRAMYCIN HYDROCHLORIDE LABELING

The new antibiotics chloramphenicol, aureomycin hydrochloride and terramycin hydrochloride are highly bacteriostatic for many bacteria. Susceptible bacteria are suppressed and Monilia or other yeast-like organisms may replace the normal or abnormal bacterial flora. This most frequently occurs in the large bowel and is of little consequence. However, if this replacement occurs in a lung abscess, bronchiectatic cavity or in certain other lesions, a condition is created which may be unfavorable for the patient. Deaths from pulmonary moniliasis following therapy with the new antibiotics are known. Also instances of cutaneous moniliasis mistaken for sensitivity have been noted when the newer antibiotics were used in the treatment of disease.—*Council on Pharmacy and Chemistry.*

✦ Reports and Announcements ✦

INTERNATIONAL ACADEMY OF PROCTOLOGY

The third annual convention of the International Academy of Proctology will be held at the Mayflower in Atlantic City, N. J., on June 7 and 8, 1951.

The scientific session of the program will feature the more recent developments in proctology through papers presented by outstanding speakers. These sessions will be open to members of the medical profession without charge.

The annual banquet of the Academy will take place on Thursday evening, June 7, 1951.

Further information concerning the convention and a copy of the program may be obtained by writing to the secretary, Dr. Alfred J. Cantor, International Academy of Proctology, 1819 Broadway, New York 23, N. Y.

INTERNATIONAL CONGRESS OF PHYSICAL MEDICINE (1952)

The International Congress of Physical Medicine will be held in London from July 14 to 19, 1952.

In accordance with the regulations of the International Federation of Physical Medicine, the meetings of the Congress will be reserved for matters dealing with the clinical, remedial, prophylactic and educational aspects of physical medicine and with the diagnostic and therapeutic methods employed in physical medicine and rehabilitation.

Technical, scientific and historical exhibitions also will be arranged.

In addition to the scientific program, a full program of social events and entertainment is being planned for the members and associate members. Arrangements for London and provincial visits of scientific and historical interest are also being made for the Congress week and the following week.

This is a preliminary notice, and full details will be announced later. Applications for the provincial program should be addressed to the Honorary Secretary, International Congress of Physical Medicine (1952), 45, Lincoln's Inn Fields, London, W.C.2.

AMERICAN PUBLIC HEALTH ASSOCIATION

The seventy-ninth annual meeting of the American Public Health Association, the eighteenth annual meeting of its western branch and the annual meetings of thirty-eight related organizations will be held simultaneously in San Francisco, October 29 to November 2. The combined meetings will bring together 5,000 health specialists from all parts of the Western Hemisphere. In San Francisco they will hear more than 400 authorities discuss modern public health practice in all its aspects and its vital relationship to national security and civilian defense.

CANCER MOTION PICTURES AVAILABLE

The Minnesota Division, American Cancer Society, has announced the availability of a new catalog of professional motion pictures related to cancer. This catalog, which lists the films available from the American Cancer Society, can be obtained from the Minnesota Division office.

Dr. Arthur H. Wells of Duluth, president of the Minnesota Division of the ACS, has pointed out that these professional films on cancer may be loaned to professional groups for showing in connection with meetings at which cancer may be discussed. These groups may be hospital staffs, medical schools, nursing schools, postgraduate courses in cancer, state and county medical meetings. There is no charge for the use of these films. Persons interested in obtaining a copy of the catalog may write to the Minnesota Division office of the American Cancer Society at 622 Commerce Building, Saint Paul 1.

MINNESOTA SOCIETY FOR CRIPPLED CHILDREN

The Minnesota Society for Crippled Children is a component part of the National Society for Crippled Children. In recent years the Society has been putting on an Easter Seal drive to raise funds to carry on the nationwide activities of this organization to help children and adults, who are crippled in one way or another, to live normal lives.

This year the Easter Seal drive in Minnesota fell behind other states. Some $80,000 more is needed to carry on the statewide activities desired. With the many requests for contributions, it is easy to let the small contribution to this society slide. Not necessarily a large contribution, but a large number of small contributions, will enable the society to carry out its work locally without curtailment.

Contributions may be sent to the Minnesota Society for Crippled Children and Adults, 1635 Hennepin Avenue, Minneapolis 3, Minnesota.

MINNESOTA SOCIETY OF MEDICAL TECHNOLOGISTS

The Minnesota Society of Medical Technologists will hold its annual convention on May 18 in the Minneapolis Auditorium and on May 19 at the Mayo Clinic Women's Club, Rochester.

Dr. Walter H. Seegers, professor of physiology and chairman of Wayne University College of Medicine, Detroit, Michigan, will be the guest speaker for the scientific meeting on the afternoon of May 18. He will discuss "Clotting of Blood" from 2:00 to 4:00 p.m. in Room 5, Minneapolis Auditorium.

At the morning session, from 10:30 to 12:00, in Room 5, Minneapolis Auditorium, Dr. Paul G. Frick and Miss

(Continued on Page 498)

MINNESOTA SOCIETY OF MEDICAL TECHNOLOGISTS

(Continued from Page 496)

M. Jeanette Stephens of the University of Minnesota Hospitals will discuss and demonstrate "Routine Coagulation Tests—Their Technique, Limitations and Clinical Implications."

All interested are cordially invited to attend.

RAMSEY COUNTY TUBERCULOSIS AND HEALTH ASSOCIATION

At the annual meeting of the Ramsey County Tuberculosis and Health Association (formerly known as the Ramsey County Health Association), held April 25, 1951, at the Athletic Club in Saint Paul, the following officers were elected:

President—Edward A. Knapp
First Vice President—J. Richards Aurelius, M.D.
Second Vice President—John B. Burke
Treasurer—P. A. F. Smith
Assistant Treasurer—J. A. Caritzel
Executive Secretary—Ruth P. Junkin
Secretary—E. A. Meyerding, M.D.

The most impressive report of the activities of the year 1950 was the discovery of fifty-six unsuspected cases of tuberculosis as a result of the free chest x-ray survey that year. These were individuals who, had not their condition been detected, would now be disseminating the disease and would in some cases have escaped early detection, so important for the treatment of the patient.

SAINT PAUL SURGICAL SOCIETY

At a meeting of the Saint Paul Surgical Society at the Minnesota Club on March 21, Dr. Lyle Hay and Dr. Clarence Dennis were guest speakers. Dr. Hay, chief surgeon at Minneapolis Veterans Hospital, discussed "Perforated Duodenal Ulcers." Dr. Dennis, professor of surgery at the University of Minnesota, spoke on "Ulcerative Colitis."

WASHINGTON COUNTY SOCIETY

The regular meeting of the Washington County Medical Society was held in Stillwater on April 10. Guest speakers at the meeting were Dr. Vernon Smith and Dr. Albert F. Hayes, both of Saint Paul. Dr. Smith spoke on "Thrombo-embolic Phenomena," and Dr. Hayes discussed "Rupture of the Uterus."

The scientific program was followed by a presentation of motion pictures by Dr. Smith. The color pictures, showing a hunter's paradise as well as skiing adventures, were accompanied by rapid-fire comments by Dr. Smith.

In April the county society finished the publishing in county newspapers of the "educational posters" supplied by the Minnesota State Medical Association. The posters appeared 127 times.

In Memoriam

FERDINAND G. BENN

Dr. F. G. Benn, formerly of Minneapolis, died at LaMesa, California, March 12, 1951.

Dr. Benn was born at Amenia, North Dakota, September 14, 1878. His preliminary education was obtained at Castleton, North Dakota. He obtained a B.S. degree from The North Dakota College, Fargo, in 1898 and his M.D. degree from Hamline in 1903. Some twenty-one months of postgraduate study was taken in Chicago, New York and Vienna.

Dr. Benn practiced at Kulm, North Dakota, from 1903 to 1907 and again from 1908 to 1913. Since 1913 he had practiced in Minneapolis until he moved to LaMesa three years ago.

He was a member of the Hennepin County Medical Society, the Minnesota State Medical Association and the American Medical Association. He was a member of the staff of St. Barnabas Hospital and of Joppa lodge.

Dr. Benn is survived by a daughter, Mrs. Dorothy Schultz, Hopkins, and a son, Howard.

EDWIN JOHN GERALD BLOEMENDAAL

Doctor Bloemendaal of Lake Park, Minnesota, died early in April, 1951.

He was born in Orange City, Iowa, December 4, 1910. His preliminary education was obtained at Northwestern Classical Academy and Northwestern Junior College at Orange City, Iowa. He obtained his M.D. degree from the Iowa School of Medicine, Iowa City, Iowa, in 1936. He interned at Providence Hospital, Detroit, Michigan, and took postgraduate work at the University of Minnesota for six months. He served in the United States army for nearly nine years.

FELIX CHARLES DOLDER

Dr. F. C. Dolder, well-known practitioner of Eyota, Minnesota, died March 19, 1951 after a brief illness. He was seventy-six years of age.

Dr. Dolder was born in Chicago, March 30, 1874. He received his early schooling at Chicago English High School at Manual Training High School and at Armour Institute in Chicago. His medical training was obtained at Northwestern University from which he was graduated in 1903. He took additional training at the Postgraduate School in Chicago.

Dr. Dolder practiced at Joliet, Illinois, and at Hastings and St. Charles in Minnesota before locating at Eyota thirty-seven years ago.

On September 17, 1908, he was married to Emma Mary Luhmann at Dover. His wife passed away September 18, 1944. A son and daughter survive him.

Dr. Dolder was a member of the Olmsted-Houston-Fillmore-Dodge County Medical Society, the Minnesota State Medical Association and the American Medical Association. He was president of the Eyota Commercial Club in 1941 and a former mayor of Eyota. During more recent years he was well known for the elaborate Christmas decorations which he sponsored, in particular the customary huge Christmas bell which hung over the street near his home.

JOSEPH E. HEARD

Dr. Joseph E. Heard, former fellow in surgery of the Mayo Foundation, died at Shreveport, Louisiana, on January 19, 1951.

Dr. Heard was born at Brownsville, Tennessee, on December 15, 1888. He received the degree of M.D. in 1914 from Tulane University in New Orleans, and was an intern at the Charity Hospital in New Orleans from June, 1914, to June, 1916. He entered the Mayo Foundation as a fellow in surgery in July, 1916, and left the Mayo Foundation in July, 1922. During that time he served as a captain in the medical corps of the A.E.F. in France from August, 1917, to July, 1919. For four months he practiced at the Holt Clinic in Fort Smith, Arkansas, after which time he went to Shreveport, Louisiana, to practice surgery where he remained until the time of his death.

Doctor Heard was a diplomate of the American Board of Surgery, a fellow of the American College of Surgeons, a member of the American Medical Association, and a major in the Medical Reserve Corps of the United States Army.

CARL A. SCHERER

Dr. Carl A. Scherer of Duluth died February 12, 1951, at the age of sixty-eight.

Dr. Scherer was born in New Ulm, February 23, 1881. He attended Pillsbury Academy before graduating from the University of Michigan Medical School in 1907.

He practiced in Bolivia from 1909-12 and studied in Munich and Zurich in 1912-13. He was instructor in communicable diseases and diseases of children at the University of Minnesota from 1914 to 1916.

Dr. Scherer was associated with the Duluth Clinic for a number of years and was a former president of the St. Louis County Medical Society. He was health officer of St. Louis County from 1934 to 1944.

Death occurred at Maryville, California, where he was serving as county health officer.

GEORGE JACOB SCHOTTLER

Dr. George J. Schottler, a practitioner in the Dexter community for fifty-four years, died February 15, 1951. He was eighty years of age and had practiced for fifty-four years.

Doctor Schottler was born at Rockfield, Wisconsin, November 5, 1870. After attending district schools in

(Continued on Page 502)

GEORGE JACOB SCHOTTLER

(Continued from Page 500)

Wisconsin, he took a teacher's course in the North Indiana Normal School at Valparaiso, Indiana, graduating in 1892 with a B.S. degree and then attended Rush Medical School where he obtained his M.D. degree in 1896. He began practice at Dexter the same year. He took postgraduate work at Chicago Postgraduate School at a later date.

On March 27, 1947, Doctor Schottler shared honors with Dr. O. H. Hegge and the late Dr. A. E. Henslin at a dinner held in Austin in their honor. All three had each given more than fifty years of service to his community. Five years ago the county he served gave a party sponsored by the Dexter American Legion Auxiliary on the occasion of his seventy-fifth birthday.

Dr. Schottler was a member of the Mower County Medical Society, the Minnesota State Medical Association and the American Medical Association. He is survived by his wife; three sons, Dr. Max Schottler of Minneapolis, Kenneth of Duluth and Jesse of White Plains, New York; and a daughter, Mrs. Kathryn Remington of Chicago.

GLADYS TROMMALD SHERRILL

Dr. Gladys Trommald of Brainerd, who in 1950 married C. H. Sherrill, passed away March 1, 1951. She was forty-seven years of age.

Doctor Trommald was born July 21, 1903 in Brainerd, Minnesota. She was a graduate of Washington High School at Brainerd and obtained her M.D. degree from the University of Minnesota Medical School in 1930. She served in Northville, Michigan, and in Jacksonville, Illinois, as a psychiatrist before acting as assistant superintendent at the Anoka State Hospital.

Doctor Trommald is survived by her husband and one brother, Al Trommald, both of Brainerd.

ALBERT BERRY STUART

Dr. Albert B. Stuart, a physician of Cloquet, Minnesota, for the past thirty-two years, passed away March 21, 1951. He was sixty-eight years of age.

Dr. Stuart was born at Chariton, Iowa, September 1, 1882. He was graduated from the School of Medicine at the University of Nebraska in 1904. He served as an extern at the W.C.A. Hospital in Council Bluffs, Iowa.

Upon his return from service in the army overseas, he was associated with the Debarkation Hospital in New York and also served on the staff of Bellevue Hospital in New York before coming to Cloquet.

Dr. Stuart was a surgeon for the Northern Pacific Railway, served on the Cloquet Fire Commission, the Library Board and the Civic Center Board. He belonged to the local Masonic lodge and the Association for the Advancement of Science. He was a member of the St. Louis County Medical Society, the Minnesota State Medical Association and the American Medical Association.

He is survived by his wife, a son, Donald M. Stuart, of Indianapolis and a brother, Fred, of Joliet, Illinois.

Of General Interest

Dr. Elmer L. Henderson, president of the AMA, recently completed a tour of the United States military bases and operations in the Pacific area. He visited hospitals, talked with hundreds of Army, Navy and Air Force physicians, conferred with General MacArthur and flew over the battle lines in Korea. General MacArthur told Dr. Henderson that American wounded in the Korean war are getting the best medical care ever supplied soldiers anywhere.

* * *

Dr. John S. Siegel, Virginia, returned early in April from a three-week trip to California, during which he attended a meeting of the American Academy of General Practice at San Francisco.

* * *

A compilation of thirty scientific papers presented last fall at a University of Minnesota symposium on hypertension in honor of three Minnesota medical scientists has been published by the University of Minnesota Press.

The book, "Hypertension: A Symposium," was edited by **Dr. Elexious T. Bell,** professor emeritus of pathology at the University and one of the three men honored at the conference last fall. Tribute was also paid to **Dr. Benjamin J. Clawson,** professor emeritus of pathology, and **Dr. George E. Fahr,** professor emeritus of medicine.

Contributors to the book include physicians from every section of the United States and from three foreign countries. The book summarizes existing knowledge of hypertension, its causes and its treatment, and points the way to future research in the field.

* * *

Dr. Ludvig R. Lima and **Dr. William A. Owens** moved their offices into new quarters in the Arneson Drug Store Building in Montevideo during the middle of March. The new quarters for the clinic include offices for four physicians, examination rooms, waiting room, library, laboratory and a room for minor surgical operations.

* * *

Dr. Arthur M. Hall, Minneapolis, has accepted a call to serve as a missionary to South Africa for the Evangelical Lutheran Church.

* * *

Dr. Charles W. Rucker, Rochester, presented a talk on his trip to Guatemala at a meeting of the International Relations Club of Rochester Senior High School on April 4. His talk was illustrated with slides.

* * *

Among Minnesota physicians who registered at the fourteenth annual meeting of the **New Orleans Graduate Medical Assembly,** which was held March 5 to 8, were the following: Dr. D. L. Donovan, Albert Lea; Dr. H. C. Johnson, Thief River Falls; Dr. Francis McCarten, Stillwater; Dr. J. B. Nixon, Crosby; Dr. George S. Baker and Dr. Arlie R. Barnes, Rochester; Dr. Thomas J. Edward, Dr. James R. Ralph and Dr. Ramby C. Rasmussen, Saint Paul; Dr. Jay C. Davis, Dr. Russell Heim, Dr. John L. McKelvey, Dr. William H. Rucker, Dr. A. N. Russeth, and Dr. Albert V. Stoesser, all of Minneapolis.

* * *

Dr. B. T. Bottolfson, Moorhead, has moved his offices to the second story of the newly constructed Bottolfson Building in Moorhead. For the past five years his offices have been located in a Fargo building.

* * *

Dr. William O. McLane, formerly associated with the Bratrud Clinic at Thief River Falls, has taken over the practice of the late Dr. J. Lehman in Brainerd.

* * *

Dr. Richard L. Varco, associate professor of surgery at the University of Minnesota, was the principal speaker at a meeting of the Grand Forks, North Dakota, District Medical Society on March 21.

* * *

"Detection and Prevention of Cancer and Heart Disease" was the theme of a meeting held by the Twin Cities Lodge, American Federation of Government Employes, in Saint Paul on April 12. On the program **Dr. John F. Briggs,** Saint Paul, past president of the Minnesota Heart Association, spoke on "New Hope for Hearts."

* * *

Dr. Bernard S. Nauth, formerly of Winona, has opened offices for the practice of medicine in Bagley. Before moving to Bagley, he was associated with the Winona Clinic from 1945 to 1950.

* * *

Dr. John F. Pohl, Minneapolis, left for Europe during the first week of April to begin a three-month fellowship under the World Health Organization. He will study treatment, care, management and employment of crippled people in England, Germany, France and Austria.

* * *

Dr. D. L. Johnson, Little Falls, returned on April 3 from a two-week trip to California, where he attended a meeting of the American Academy of General Practice in San Francisco.

* * *

"An Atlas for the Clinical Use of the MMPI," a handbook for case histories for users of the Minnesota Multiphasic Personality Inventory, was published during the first week of April by the University of Minnesota Press. Authors of the volume are Professors Starke R. Hathaway and Paul E. Meehl. The book contains 968 case summaries, documenting a representative cross section of clinical experience with the MMPI, a test devised by Dr. Hathaway and the late Dr. J. C. McKinley.

Official Registration Figures

MINNESOTA STATE MEDICAL ASSOCIATION'S ANNUAL CONVENTION

Rochester, Minnesota **April 30-May 2, 1951**

Doctors	**1,659**
Nurses, Dietitians, Technicians, Social Workers and Medical Secretaries	**460**
Scientific Exhibitors	**48**
Commercial Exhibitors	**325**
Women's Auxiliary	**367**
Guests (Miscellaneous)	**216**
Total	**3,075**

Dr. and Mrs. F. L. Kling, Milaca, were named "Tourists of the Week" at Weslaco, Texas, while vacationing there late this last winter. For the past seven years they have spent part of the winter at the Weslaco Trailer Park, living in their trailer home. Dr. Kling has practiced in Milaca as a general physician and surgeon for forty years.

* * *

It was announced on March 22 that the partnership of **Dr. H. H. Holm** and **Dr. John W. Gridley** in Glencoe would be dissolved on April 1. Dr. Gridley, who became associated with Dr. Holm in 1946, planned to spend two months in postgraduate training and then, on June 1, become a partner in the Medical Arts Clinic at Watertown, South Dakota.

Dr. George N. Aagaard, assistant professor of medicine at the University of Minnesota, was principal speaker at a meeting of the Lutheran Student Sunday Evening Club at the University's Coffman Memorial Union on April 15. He spoke on the topic, "Are We Accentuating the Positive?"

* * *

A **"Doctors Exchange,"** designed to provide better medical service to the community, has been established in St. Cloud by the local physicians. All after-hour calls to physicians are centralized in one switchboard, which is open twenty-four hours a day. The exchange operator is informed at all times as to where physicians can be located, and if a specific physician is not immediately available, the exchange

can suggest another who is convenient to the area from which the call originates.

* * *

Dr. J. C. Lannin, of Mabel, suffered a dislocated clavicle on March 27 when his car rolled backwards as he was alighting from it and severely twisted his shoulder.

* * *

Dr. H. Herman Young, Rochester, was a speaker at the accident prevention clinic held in Mankato on April 12. Dr. Young described his work in determining the causes of farm accidents and planning prevention programs.

* * *

Dr. C. W. Wasmund has returned to Red Wing and has become associated again with the Interstate Clinic. For the past eighteen months he has been working in the ophthalmology departments of several New York hospitals.

* * *

Dr. Christopher Graham, well-known Rochester physician, celebrated his ninety-fifth birthday in Rochester on April 3.

* * *

Dr. Charles W. Rogers, Winona, attended a meeting of the American Academy of Pediatrics in Cincinnati, Ohio, during the last week of March.

* * *

Dr. Robert A. Huseby, cancer research specialist at the University of Minnesota, discussed modern developments in cancer control at a one-day conference on cancer at St. Luke's Hospital, Duluth, on March 31. Sponsored by the Duluth District, American Cancer Society, the meeting was open to the public and featured discussions by a number of authorities on cancer.

* * *

Dr. Robert W. Hollenhorst, Rochester, participated in a spring graduate course at Gill Memorial Eye, Ear and Throat Hospital at Roanoke, Virginia, during the first week of April. He presented four papers entitled "Cortisone in the Treatment of Eye Disease," "The Eye in Hypertensive Cardiovascular Disease," "The Eye Manifestations of the Diffuse Collagenous Diseases" and "Optic Neuritis."

* * *

Dr. E. Mendelssohn Jones, chief of the surgical staff of Ancker Hospital, Saint Paul, was honored on April 21 at a testimonial dinner given by the members of the surgical staff at the Minnesota Club. Surgical residents and their wives were guests. Dr. Jones has been a member of the staff of the hospital since 1918 and has been chief of the surgical section for several years.

* * *

Dr. James M. Wagoner has opened offices for the practice of medicine in Harmony. A graduate of Indiana University School of Medicine, he served in the Army during World War II and later practiced in Indiana for two and one-half years.

* * *

Dr. and Mrs. Robert E. Hansen and their children, Tommy and Jeanne, have moved from Hibbing to

Rochester, where Dr. Hansen began a fellowship at the Mayo Foundation on April 1.

* * *

Dr. Nathan K. Jensen has announced the opening of offices at 1935 Medical Arts Building, Minneapolis, for the practice of general and thoracic surgery.

* * *

The report of a committee on chronic and convalescent care in Saint Paul on March 21 indicated that the city needs three fifty-bed chronic-care hospital units and an additional public nursing home with 350 to 400 beds.

The committee, whose report was approved by the Saint Paul Area Health Council, was headed by **Dr. Ralph L. Olsen.** The committee estimated that there are 4,230 chronically ill persons in Saint Paul in a year, that 69 per cent of them are over sixty-five years of age, and that two-thirds of them need hospital or nursing-home care.

* * *

Dr. John W. Kirklin, Rochester, spoke on "Special Considerations in the Surgery of Infants and Children" at a meeting of the Jackson County Medical Society in Kansas City, Missouri, on March 27.

* * *

Dr. H. E. Coulter and **Dr. W. J. Hruza** moved their offices into their newly constructed office building in Madelia on March 24.

* * *

Dr. George W. Bagby moved from Cannon Falls to Rochester during the first week of April. He has begun a fellowship at the Mayo Foundation.

Speaking at a meeting of the Saint Paul Association of Officemen on March 27, **Dr. Gordon R. Kamman,** Saint Paul, discussed the Minnesota mental health program.

* * *

Among Minnesota physicians attending the annual meeting of the American Academy of General Practice in San Francisco late in March was **Dr. Harry B. Clark** of St. Cloud.

* * *

Minnesota's eighty-four rural counties spent more than $49,000 in **Christmas Seal** money last year to help finance the search for cases of tuberculosis, the Minnesota Public Health Association reported on March 26. Counties offering free chest x-rays to all residents last year included Goodhue, Mower, Kandiyohi, Lake of the Woods, Koochiching, Dakota, Rice, Grant, Waseca, Sherburne, Pope, Wabasha and Fillmore.

* * *

Dr. Kenneth D. Devine and **Dr. John R. Hill** were speakers at a meeting of the Chippewa County Medical Society in Chippewa Falls, Wisconsin, on April 10. Dr. Devine spoke on "Injuries of the Face and Facial Bones," and Dr. Hill discussed "Abscesses and Fistulas of the Anorectal Region."

* * *

Physicians of Fairmont and the surrounding area, all staff members of the Community Hospital, began a new policy in March of holding monthly staff conferences to correlate policies and keep informed on

new therapeutic developments. Chief-of-staff for this year is Dr. W. H. Rowe of Fairmont.

BLUE CROSS AND BLUE SHIELD NEWS

Minnesota Blue Shield enrollment at the close of 1950 had risen from the 1949 total of 260,501 to 411,733. The 1950 Blue Shield payments on medical claims totaled $2,249,032.00 as compared to the 1949 total of $1,156,-231.00. Nationally, Blue Shield covers over 18,000,000 people, Blue Cross over 40,000,000.

In view of the adjusted payments for some items in the schedule of payments to doctors, which were adopted during the latter part of 1949, and increased incidence, it was anticipated that the ratio of surgical-medical service expense to total earned income would be considerably greater than for the year, 1949, however, the percentage of surgical-medical service expense to total earned income for 1950 was 76.3 per cent compared with 72.8 per cent for 1949, or only a 3.5 per cent increase.

According to the latest report on all Blue Shield plans, as of September 30, 1950 these plans showed that an average of 80.94 per cent of income was used for medical and/or surgical expenses, 12.79 per cent was used for operating expenses, and 6.27 per cent for net income for reserves. The continued co-operation between Minnesota Blue Cross and Blue Shield has benefited both plans resulting in increased enrollment, decreased operating expenses, and in meeting the needs of the public who for the most part consider hospital and doctor bills as one item.

The present allowance of $25.00 for tonsillectomies performed on children under 13 years of age, has been increased effective May 1, 1951, to $30.00 for children who are eligible under the contract. This increase was based upon a study and recommendation by the Medical Advisory Committee, and was approved by the Board of Directors of Minnesota Medical Service, Inc., on March 28, 1951.

Last year for the first time we offered Blue Shield and Blue Cross contracts to individuals not eligible to enroll through groups. The underwriting of these individuals is more hazardous than group underwriting. Experience so far has been satisfactory. Continued studies are being made to determine whether or not individuals may be enrolled more often than under the present method.

The third non-group campaign for Blue Cross and Blue Shield opened on April 1 and closed April 21. To publicize the campaign, advertisements were placed in three metropolitan newspapers and other newspapers in the State. Radio spot announcements by Cedric Adams also helped to promote the non-group program. These advertisements and spot announcements are part of a promotional campaign planned for 1951. The total program includes 22 newspaper advertisements, and 20-second radio announcements by Cedric Adams for a period of 26 weeks, six nights a week, beginning April 2.

BOOK REVIEWS

Books listed here become the property of the Ramsey, Hennepin and St. Louis County Medical Libraries when reviewed. Members, however, are urged to write reviews of any or every recent book which may be of interest to physicians.

Books Received for Review

IMMUNOLOGY. Third Edition. Noble Pierce Sherwood, Ph.D., M.D., F.A.C.P. Professor of Bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. 731 pages. Illus. Price $8.00, cloth. St. Louis: C. V. Mosby Co., 1951.

HANDBOOK OF PEDIATRIC MEDICAL EMERGENCIES. Adolph G. DeSanctis, M.D., Professor of Pediatrics and Chairman of the Department of Pediatrics, Postgraduate Medical School, New York University-Bellevue Medical Center, Director of Pediatrics, University Hospital, New York University-Bellevue Medical Center, Director of Pediatrics, Gouverneur Hospital, New York City; and Charles Varga, M.D., Instructor in Pediatrics, Postgraduate Medical School, New York University-Bellevue Medical Center, Assistant Attending Pediatrician, University Hospital, New York University-Bellevue Medical Center, Assistant Visiting Pediatrician, Gouverner Hospital, New York City. 284 pages. Illus. Price $5.00, cloth. St. Louis: C. V. Mosby Co., 1951.

CHRONIC ULCERATIVE COLITIS. J. Arnold Bargen, M.D. Division of Medicine, Mayo Clinic, Rochester, Minnesota. 62 pages. Illus. Price $2.00, flexible binding. Springfield, Illinois: Charles C Thomas, 1951.

HYPERTENSION—A Symposium held at the University of Minnesota on September 18, 19 and 20, 1950, in honor of Elexious T. Bell, M.D., Benjamin J. Clawson, M.D., and George E. Fahr, M.D. Edited by E. T. Bell, M.D. 573 pages. Illus. Price $7.50, cloth. Minneapolis: Colwell Press, 1951.

SOME CONTEMPORARY THINKING ABOUT THE EXCEPTIONAL CHILD: Proceedings of a Special Conference on Education and the Exceptional Child of the Child Research Clinic of the Woods Schools, November, 1949. Langhorne, Pa.: Woods Schools, 1949. Reprints free on request.

This excellent pamphlet contains the record of the proceedings of a special conference on feebleminded, palsied, and epileptic children, as well as certain other specially handicapped children. It is concerned particularly with broad problems of management and possible community action in handling these conditions. For this reason it is of particular interest to this state in our attempts to improve our care of these conditions. It is brief, concentrated, and thorough in its coverage of these conditions.

MULTIPLE SCLEROSIS AND THE DEMYELINATING DISEASES: Proceedings of the Association for Research in Nervous and Mental Diseases, Dec. 10 and 11, 1948, New York. (Research Publication v. 28). 675 pages, illus. Price $12.00. Baltimore: Williams & Wilkins, 1950.

The Association for Research in Nervous and Mental Diseases has published its second volume on Multiple

Sclerosis and the Demyelinating Diseases. This, the twenty-eighth volume in a series of research publications, is a compilation and discussion of what is at present known about the demyelinating diseases. Over a quarter of a century has elapsed since multiple sclerosis was the subject of discussion at the annual meeting of the Association. In 1921, the Association first published the proceedings on multiple sclerosis in the second volume of the research publications.

A total of sixty-eight contributors representing all aspects of the demyelinating diseases have collaborated on their respective interest and knowledge in this disease. This volume brings to the clinician the latest in diagnosis, in treatment, and in probable etiology of multiple sclerosis, a neurologic disease familiar to all practitioners. The book is divided into eight major sections as follows: Part I.—Multiple Sclerosis, Historical Retrospect; Part II.—Ecology of Multiple Sclerosis; Part III.—Etiology of the Demyelinating Diseases; Part IV.—Blood Flow in Multiple Sclerosis; Part V.—Anatomic and Chemical Aspects of Multiple Sclerosis; Part VI.—Pathologic Aspects of the Demyelinating Diseases; Part VII.—Symptoms and Signs, Clinical Course and Diagnosis of Multiple Sclerosis; and Part VIII.—Current Treatment of Multiple Sclerosis.

The authors emphasize that the diagnosis of multiple sclerosis is not too difficult to make if one remains constantly aware of the fact that the crux of the diagnosis is the multiplicity or scattering of findings that defy localization to any single part of the central nervous system. It is also emphasized by the contributors that the diagnosis of multiple sclerosis is often made too glibly and surgical lesions that would account for the neurologic deficit are by-passed. Once the diagnosis of multiple sclerosis is made, investigation ceases to the detriment of the patient. Practically every practicing neurologist can recall a case wherein the diagnosis of multiple sclerosis was made and at a later date a brain or spinal cord tumor was removed. The chapter on the diagnosis of multiple sclerosis by Dr. Foster Kennedy emphasizes this point of the masquerade of multiple sclerosis.

This book will prove to be a most excellent reference to all who deal with neurologic disorders.

Z. R. M.

CORONARY ARTERY DISEASE. By Ernest P. Boas, M.D., Associate Physician, Mount Sinai Hospital, New York City, and Norman F. Boas, M.D. 399 pages. Illus. Price, $6.00. Chicago: The Year Book Publishers, Inc., 1949.

This monograph is a timely and valuable addition to cardiac literature. The chapters on physiology, anatomy and pathology are an introduction that the busy practitioner will skim over hurriedly. The clinical portion will provoke much thought.

The author wisely considers the myocardial infarction as but an episode in the course of coronary heart diseases. However, it so often is such a major factor that a further discussion of the ultimate prognosis after myocardial infarction would have been valuable.

The discussion of the relation of activity and trauma to coronary disease is particularly interesting. The author presents good evidence in support of his thesis that many myocardial infarctions are caused by occupational factors.

Anyone who sees heart patients will find much of value in this book.

David M. Craig, M.D.

VILLON, UN MAUVAIS GARÇON. Dr. Pierre Lôo. 119 pages. Price 350 frs., Paris: Vigot Freres, 23 rue de l'École de Medicine, 1950.

Here is another book about Villon, the "bad boy" among the poets. Hundreds of writers have discussed his "Petit Testament," his "Grand Testament," his Ballades" and other poems. Practically all acknowledge his genius, but there is not the same unanimity regarding his character. This attractive brochure is a psychological and medico-legal study of the self-confessed rascal.

Nearly all we know of Villon's life is set down in the frank and open revelations found in his verses. He was born in 1431. His father died when he was very young. His mother, pious, but poverty stricken, entrusted his education to a rather indulgent priest, Guillaume de Villon, chaplain of St. Benoit de Bétourné. The youngster played many tricks on his guardian and associated at night with all the bad boys in the neighborhood, which was just outside of Paris. With funds provided by the priest, he matriculated at the Sorbonne, where he acquired a smattering of classical knowledge. Eventually, he was made a "Master of Arts" and was licensed as a

"clerk." Meanwhile, he had lived the night life of many Paris students of the day, gambling, drinking and making boon companions, of doubtful reputation, of both sexes. He was often without funds and in poor health. Dr Lôo does not believe he had tuberculosis. Returned to St. Benoit, he became involved in various robberies and even in a homicide which may have been in self defense.

His verses, sad and pessimistic as many of them are, seem still to be regarded as very beautiful, and the poet himself as worthy of affection. Rabelais, Daudier and Swinburne loved him, emphasizing his virtues and minimizing his faults. Robert Louis Stevenson was less lenient.

Doctor Lôo takes a realistic view of the man, and attributes most of his acknowledged faults to the times and the environment. He concludes that his evident mental disease was not a psychosis but a psychoneurotic state. He had a brilliant intellect and no lack of emotions but not even an attenuated sense of moral responsibility. He was a "déséquilibré," an unbalanced personality. With a Christian background, a belief in a merciful God and a love for France, he still was powerless to act accordingly. Doctor Lôo raises the question, "Is not perhaps a great poet more useful to the world than an honest man?"

ARTHUR T. LAIRD, M.D.

A DICTIONARY OF THE FUNGI. G. C. Ainsworth, B.Sc., Ph.D., University College, Exeter, Devon; G. R. Bisby, M.A., Ph.D., Commonwealth Mycological Institute, Kew, Surrey. 447 pages. Illus. Price $3.00, cloth. Kew, Surrey. The Commonwealth Mycological Institute, 1950.

Though titled a dictionary, this volume takes on a broader responsibility than a mere definition of mycological terms. The dictionary proper lists alphabetically the names of the various classes, orders, families and genera of fungi found throughout the world; also descriptive terms, as well as a number of helpful tables and more extended discussions of certain subjects of which the following are typical: Agaricaceae, antibiotics, bacteria, classification, collection and preservation of fungi, history of mycology, etc. Unfortunately for the physician or other casual inquirer in the realm of fungi, the data listed under the average term (the name of the genus, for example), are so condensed and terse as to be somewhat baffling until the system of reference is ferreted out piece by piece. For the true mycologist (to which rarefied genus the reviewer decidedly does not belong), the terseness may well be an advantage rather than a disadvantage.

While a key to the families of fungi is appended, also a systematic arrangement of the genera of Myxothallophyta (slime thallophytes) and Eumycetes (fungi), no attempt is made to list individual species of fungi, numbering some 37,500. Neither is any key given for identification of species of fungi—an endeavor which of itself would require a volume much larger than the present one.

It is obvious that the book is written for the mycological student, the scientist, rather than the hobbyist, the amateur collector of mushrooms or the chance wanderer among the fungi. For the professional inquirer, it is a scholarly work and should be an excellent reference.

RENO W. BACKUS, M.D.

THE PRACTICE OF MEDICINE. Jonathan Campbell Meakins, C.B.E., M.D., LL.D., D.Sc., Formerly Professor of Medicine and Director of the Department of Medicine, McGill University; Formerly Physician-in-Chief, Royal Victoria Hospital, Montreal; formerly Professor of Therapeutics and Clinical Medicine, University of Edinburgh; Fellow of the Royal Society of Edinburgh; Fellow of the Royal Society of Canada; Fellow of the Royal College of Physicians, London; Fellow of the Royal College of Physicians, Edinburgh; Honorary Fellow of the Royal College of Surgeons, Edinburgh; Fellow of the Royal College of Physicians, Canada; Fellow of the American College of Physicians; Honorary Fellow of the Royal Society of Medicine. 1558 Pages with 518 Illustrations, 50 in color. Price $13.50. St. Louis: The C. V. Mosby Company, 1950.

The fifth edition of *The Practice of Medicine* is a large and cumbersome book. Only from a material aspect, however, as the reading is clear and certainly not cumbersome. The new advances in medicine, as in metabolism, the antibiotics, and chemotherapy, are included in the volume in a very readable manner. The section on psychosomatic medicine is especially interesting and useful to the physician who deals in internal medicine.

As stated in a review of the previous edition, the

color plates used by the various contributors are outstanding in their teaching value.

In general, I would highly recommend this book. It should make up one of the units in every doctor's library.

JOSEPH M. RYAN, M.D.

PRACTICAL POINTS IN ALLERGY

(Continued from Page 445)

stitute tank type vacuum sweepers for the "beater" type.) Patients with chronic respiratory infection, nasal allergy, or bronchial asthma should be cautioned to keep sleeping room windows closed in inclement weather.

4. Emotional problems.
   They must be dealt with. Bring them up for discussion and resolve them if possible.

In dealing with the asthmatic patient, probably more than with any other group, we must keep trying, alter the program as necessary, and be ready to deal with new factors as they may enter the picture. For this dejected and discouraged group of patients we must remain cheerful and radiate confidence to our patient. If you, as his physician, quit trying and give up, what about the patient?

Chronic Eczema

Chronic eczema is another of the more difficult problems encountered in the allergy clinic. Our experience has taught us that such factors as faulty nutrition, disorders of carbohydrate metabolism, thyroid dysfunction, superimposed skin infection and over-medication of the skin are just as important as are allergic factors. Protein tests may be helpful, and again they may be non-contributory. Chocolate, eggs, wheat products, milk and sensitivity to pollens may be important items to consider. The management of such skin conditions are left primarily to the dermatologist.

Summary

1. Allergic patients may be encountered in any practice, regardless of our individual interests in medicine. We, as physicians, should be prepared with a basic plan of procedure when such individuals enter our office. Several treatment plans which have been helpful in this allergy clinic are presented.

2. A thorough and accurate history is the most important means we have of arriving at a correct analysis of such problems. Protein tests are helpful, but their importance should not be overemphasized.

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